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ABSTRACT

These proceedings are divided into three parts: Program summary, summary of major presentations, and issues identified during the seminar. The first part summarizes seminar objectives and program schedule. Papers of nine speakers are presented in the second, and major, part. The first paper reviews the past decade and indicates the future agricultural situation. Discussed in the second and third presentations are trends, critical issues, and challenges in education and the agricultural industry that will affect agricultural education. The fourth paper presents perceptions of the role of the vocational agricultural teacher. Agricultural education as part of the public school system is the topic of the fifth presentation. The next paper reviews achievements of the agricultural education profession, analyzes some problems, and projects needs in the eighties. Adult and young farmer education is considered in the seventh paper. The eighth presentation briefly addresses agricultural education's role in shaping the future. The final paper offers observations on the shape of the future in agricultural education and reiterates some unresolved issues. In the third part are presented issues identified by seminar participants concerning agricultural education and adult education as part of the public school system and development of agricultural education teachers. (YLB)

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Proceedings
National Agricultural Education Seminar

AGRICULTURAL EDUCATION: SHAPING THE FUTURE

July 15 - 17, 1980
Continental Hotel
Kansas City, Missouri

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National Agricultural Education Seminar

AGRICULTURAL EDUCATION: SHAPING THE FUTURE

Jasper S. Lee, Editor
Mississippi State University

July 15 - 17, 1980
Continental Hotel
Kansas City, Missouri

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Sponsored by
Bureau of Occupational and Adult Education
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and

Agricultural Education Division
American Vocational Association

Table of Contents

		Page
PART I. SUMMARY OF SEMINAR PROGRAM		
Introduction		2
Seminar Objectives		2
Program		2
PART II. SUMMARY OF MAJOR PRESENTATIONS		5
Transitions and Traditions of the Past Leading to the Future	Byron F. Rawls	6
Trends, Issues, and New Directions in Education Affecting Agricultura Education	Arthur Mallory	12
Trends, Issues, and New Directions in the Agricultural Industry Affecting Agricultural Education	Dean A. Raber	18
The Role of the Vo-Ag Teacher	John Murray	25
Agricultural Education as Part of the Public School System	Alan A. Kahler	32
The Development of Professional Teachers of Agriculture	Gene M. Love	38
Adult Education: A Part of Agricultural Education	Edgar A. Persons	49
Agricultural Education in the New Department of Education	Daniel B. Taylor	60
Where to From Here on the Issues	J. Robert Warmbrod	62
APPENDIX A: ISSUES IDENTIFIED DURING SEMINAR		69
Agricultural Education as a Part of the Public School System		70
The Development of Professional Teachers of Agriculture for the Public School System in the Future		70
Adult Education as a Part of the Public School System		71

Part I

SUMMARY OF SEMINAR PROGRAM

Introduction

A National Seminar on Agricultural Education was held in Kansas City, Missouri, July 15-17, 1980. The theme was "Agricultural Education: Shaping the Future." Leaders representing all levels and areas of vocational education in agriculture/agribusiness from throughout the United States attended. A total of 264 persons representing 46 states participated.

The purpose of this document is to summarize the proceedings of the Seminar. Part I summarizes the overall program, while Part II presents the papers of the speakers.

Seminar Objectives

The general objective of the Seminar was:

To identify trends, issues, and new directions that will affect agricultural education during the remainder of the 20th Century.

The specific objectives were as follows:

1. *To provide for open discussion among representatives of groups that are directly related and affected by future trends, issues, and new directions in agricultural education.*
2. *To identify and set priorities for specific issues and to develop a description for each issue.*
3. *To identify and suggest activities, programs, and/or procedures for adjustment to the trends, issues, and new directions that will have an effect upon agricultural education.*

Program

The schedule of the program is summarized here.

Tuesday, July 15, 1980

Plenary Session

Presiding	Paul Day, Vice President, Agriculture Division, American Vocational Association
Seminar Orientation	Harold R. Crawford, Seminar Program Chairperson
Transitions of the Past Leading to the Future	Byron Rawls, Agriculture Program Specialist, U. S. Department of Education

Trends, Issues, and New Directions in Education Affecting Agricultural Education . . . . . Arthur Mallory, Commissioner of Education, Missouri

Trends, Issues, and New Directions in Society Affecting Agricultural Education . . . . . Daryl Hobbs, Director of Rural Development and Professor of Sociology, University of Missouri-Columbia

Dinner Program

Presiding . . . . . Sam Stenzel, Executive Director NVATA

Trends, Issues, and New Directions in the Agricultural Industry Affecting Agricultural Education . . . . . Dean A. Raber, Senior Vice President, The Federal Land Bank of Omaha

Wednesday, July 16, 1980

Breakfast Program

Presiding . . . . . Albert Timmerman, President NVATA

The Role of the Vo-Ag Teacher . . . . . John Murray, Area Vocational Agriculture Coordinator Jackson, Minnesota

Sub-Plenary Sessions

Agricultural Education as Part of the Public School System . . . . . Alan Kahler, Director of Project 2000 Iowa State University

The Development of Professional Teachers of Agriculture . . . . . Gene Love, Associate Dean College of Agriculture Pennsylvania State University

Adult Education as Part of Agricultural Education . . . . Edgar Persons, Professor Agricultural Education University of Minnesota

Serving Special Populations Within Agricultural Education . . . . . Phyllis Meyer, Intern U. S. Department of Education

Luncheon Program

Presiding . . . . . Byron Rawls, U. S. Department of Education

Agricultural Education in the New Department of Education . . . . . Daniel B. Taylor, Assistant Secretary for Vocational and Adult Education, U. S. Department of Education

Workshop Sessions--Identification and Clarification of the Issues

Thursday, July 17, 1980

Plenary Session

Presiding . . . . . Robert Crawley, President NASAE, and Supervisor Arkansas

Greetings from National Postsecondary Agriculture Student Organization . . . . . Randal Roberts, President Fayette, Iowa

Trends, Issues, and New Directions for Our Profession . . . . . Eugene Bottoms, Executive Director, American Vocational Association

Decription of Priority Issues--Small Group Sessions

Luncheon Program

Presiding . . . . . John Crunkilton, President, AATEA and Agricultural Education Program Leader, Virginia Polytechnic Institute and State University

Where to From Here on the Issues . . . . . Robert Warmbrod, Professor and Head Department of Agricultural Education The Ohio State University

Part II

SUMMARY OF MAJOR PRESENTATIONS

Editor's Note: Papers were submitted for publication by the following presenters: Byron R. Rawls, Arthur Mallory, Dean Raber, John Murray, Alan A. Kahler, Gene M. Love, Edgar A. Persons, Daniel B. Taylor, and J. Robert Warmbrod.

TRANSITIONS AND TRADITIONS OF THE PAST LEADING TO THE FUTURE

Byron F. Rawls
Program Specialist
Agriculture, Agribusiness and Natural Resources
U.S. Department of Education, Washington, D.C.

As you can see by the title of my presentation, it is my responsibility to review the last decade, some of the traditions which we have enjoyed, and indicate to some degree how this leads to the future. I suppose this leaves me in an awkward position since this seminar is assembled here for the purpose of shaping the future. A review of the past can provide a foundation which we can use to move into the future.

I would like to say that I am happy to be here in the present. I have just completed one year of work in the responsibility of providing leadership through the position that was vacated by Mr. Neville Hunsicker on May 19, 1979. As I have indicated to Neville, I had no idea of the many different currents that were just under the surface that were impacting upon his direction. I now have much more respect and understanding for Mr. Hunsicker's leadership than I have had previously.

In reviewing the literature on agricultural education, I have gained a rich respect for the vast amount of leadership which exists. I think that the thing that Mr. Hunsicker expertly pulled from that leadership was the ideas and directions that were needed.

During the middle of the decade of the 1960's efforts were made to develop what we began to call an "Agenda" for the 70's. This seminar, or workshop, was convened in May, 1968, in St. Louis, Missouri. As I look around the room today, I find that many of the leaders at the 1968 meeting have retired or are not present. The national seminar in 1968 was primarily attended by state supervisors and teacher educators, with what was then called the National Outlook Planning Committee and an Agricultural Education Committee of Consultants in the U.S. Office of Education. This was done in cooperation with the Division of Vocational and Technical Education of the U.S. Office of Education. A report was completed and distributed in September, 1969.

As I reviewed that report, I was again face to face with the fact that we have the personnel who can take a look into the future. Because of the many commitments which were made in St. Louis in May, 1969, we now have solid evidence that these commitments are resulting in quality programs which are providing well-educated individuals whose lives are in focus and in tune with the present and the future.

Let me briefly review with you some of the primary objectives and guidelines in that seminar. We were: (1) to provide information enabling state directors of vocational agriculture and staffs of agricultural education to examine their role in initiating, administering, and coordinating local agricultural education programs; (2) to improve the education and training programs for students preparing for occupations in agriculture; (3) to assist in developing special and innovative agriculture career programs; (4) to develop agricultural education programs for the disadvantaged and handicapped; (5) to improve the efficiency of the agricultural industry by helping develop the agricultural competence and leadership of its managers and employees; and (6) to strengthen ancillary services, especially teacher education, supervision, and research.

As the 1968 seminar was developed, many small groups were set up to pay special attention to all phases and facets of the program. These included attention to areas such as curriculum. It was determined by the groups that they should be flexible in nature and developed to qualify students for entry into occupations as well as to pursue additional educational options. Special attention was paid to supervised occupational experience programs and the commitment was made that these programs should exist.

As I examine this commitment to SOE, I find that today there should be a recommitment to this one as well as several others. During the discussion of the 1980 seminar, we will see that some of the areas of our program (such as ancillary services, including administration, and supervised occupational experienced programs) may not be as strong at this point as we would like to see them or even as they were 10 years ago.

We looked at FFA in 1968, and determined that it was an organization for all students of agricultural education at the secondary level. We are currently trying to reaffirm the fact that the FFA is an integral part of the instructional program that permeates the very fabric of that program and cannot be removed. We said back then that the terminology involving FFA and its degrees, ceremonies, and activities should be appropriate for all students enrolled.

We said in 1968 that the teachers should make more use of the resources of the school and the community in providing the most effective educational situation for each individual. Special attention was paid to state staffs for agricultural education. We emphasized that they must exert, and I repeat <u>exert</u>, leadership and accept the responsibility for initiating and developing programs to provide postsecondary students with opportunities for quality training and agricultural education.

We looked at many other areas in 1968, including accepting post-secondary school programs. During one of the sessions in which I was present, the group realized that we had not fully accepted the responsibility for postsecondary instruction. I repeat from the brief statements made about this the following, "Each state should accept responsibility for the promotion, development, and maintenance of such programs and assure their

availability to persons of postsecondary school age." I believe that sentence was included because of the realization that until we accept this, as a responsibility of agricultural education, we would not accomplish the objective of providing for all students of all ages a choice to enter and succeed in a good program of agricultural education. In retrospect, we have accepted that commitment and that state staffs in most states have exerted their leadership and accepted the responsibility for developing these programs. This is evident by the fact that today we have approximately 526 postsecondary institutions in the United States that have a wide range of offerings.

Demand came from the local level for a student organization to enrich and service the postsecondary programs. This organization has been formed and is taking some very unique turns. I believe that it is allowing the profession to take advantage of some of the mistakes which have been made in the past. One of these unique aspects is the provision that membership is on an enrollment basis and by institution. As the institution joins, it submits its dues to the national organization for its entire enrollment. The organization has been officially recognized by the Department of Education as one of nine existing and approved vocational student organizations, and we now can report more than 70 institutions enrolled with approximately 8,500 members.

The Board of Directors of the postsecondary organization is currently involved in the development of an exciting program that I am predicting will be attractive to industry. It is called PAL-PEER. PAL is the acronym for "Partners in Agricultural Leadership." This denotes relationships which will be strengthened between the institution, the student, his or her individual training goals, and the industry that will be a direct partner in the development and achievement of these goals. The PEER aspect of this program will be "Personal Education Evaluation and Recognition." The unique thing about this is that one student will compete against himself/herself rather than competing with other students. This is unique in vocational agriculture, but this is the suggestion of the students themselves. With the wide differences in the programs which exist and the ways in which they have been set up, the students felt that a person should set his/her own goals. In doing so, work would be with industry to determine the level of performance so that he/she could be measured against what he/she had set out to achieve, and be recognized for those efforts. Being able to work with those students and board in attempting to set this up in concert with representatives from business and industry has been rewarding for me. I predict that this organization will grow rapidly and become very active and a component of the agricultural education family of which we can all be proud.

The plans that were made at the St. Louis seminar also paid attention to the need for teachers, facilities, instructional materials, and, to what I think is one of the great needs today, articulation of secondary schools, postsecondary schools, and college programs to assure that we identify performance levels of individuals who complete any phase of the program. We are being judged today by industry, in some respects, on the basis of what they feel our students should know.

An example of this is evident in the interviews which take place in the FFA proficiency awards program at the National FFA Convention. We have evidence that indicated that the expectations of the judges in many cases are far beyond the performance level of these individuals. It is not hard to understand that an electrical or agricultural engineer could ask questions far beyond the knowledge of the participant in the agricultural electrification contest. When this happens, criticism of the program comes back to us and we are thought not to be capable of operating a program that can produce employees that can enter the labor market. We have a big job to do in this area. We need to determine these performance levels and work toward the level needed for entry into the occupation. This needs to be done in concert with the agricultural industry for understanding and support for programs.

We looked at many other facets of agricultural education in the meeting in 1968. We looked at programs for out-of-school youth and adults. There is still a great need for attention to this segment of the population. We have emphasized making sure that agricultural education provided the needed educational programs for young farmers and adults. If we are to believe the information which is coming to us today, it will not be hard to see that we will be faced with a greater need for providing this assistance to adults in the future. Some of the information predicts that by 1990, or the end of the decade we are now in, that there will be more people over the age of 55 years than at the high school age level. This should have great implications for our programs. We should not wait until 1990 to get ready for this change.

During the seminar in 1968, we also took a close look at what we were doing for the disadvantaged and handicapped. We no longer accepted the proposition that "we were doing that anyway." We tried to take a look at the special needs program in agricultural education and made a long list of commitments. I believe we have made some progress. We still have a long way to go. I have hopes that at this Seminar we can pay some attention to this important opportunity and responsibility.

As I have already indicated, we paid some attention to the administration and supervision of vocational agriculture in 1968. We all know that staffs at the national level, state level, and local level have been reduced. Just as this priority existed back in 1968, I think it exists today to a greater degree. If we are to continue to be a viable and active participant in the solutions involving the world of agriculture and people, not only in the rural areas but also in the urban areas, we must continue to upgrade leadership so that these programs can be developed. It has always been my belief that teacher education has been, can be, and is the cutting edge of the profession. The teachers that emerge from the programs of teacher education across the country must emerge with a good professional attitude and the competencies needed to do a job with enthusiasm and commitment. I believe that teacher education can and will do the job of providing the profession with adequate personnel to deliver the educational services at the local level.

One of the problems in teacher education is that we have been successful in making our graduates attractive throughout the agricultural industry. I happen to believe that this is a good thing. It does leave shortages in some areas of the country. In many areas, classrooms are being filled with persons of less than desirable qualifications. This must receive some of our attention. The impact of the postsecondary level programs and the need for competent instructors at this level is one which teacher education should feel. There is a great need to strengthen the technical competency of teachers in the specialized areas as well as competency to deal with the problems on a day to day basis, including organization of an instructional program, conducting a viable educational program, evaluating that program, and attending to the needs of students. We are doing this in many programs, but in some we find that we are still not providing the educational environment that results in the desired outcomes. I believe that teacher education can and will respond to this need.

I have not mentioned all of the items we addressed in 1968. I have mentioned what I think are the most important ones. Time will not permit all of the discussion which took place at that time nor proper attention to other seminars held during the "70's" which addressed many of our issues. I use the 1968 seminar somewhat in parallel with the one we are beginning here today.

We are at the beginning of a new decade. Many new and needed transitions have taken place in vocational education in agriculture since the passage of the Vocational Education Act of 1963, and subsequent national seminars and developments in the field. The new legislation, which prompted many of the changes, allowed us to broaden our instruction in all phases and facets of the agricultural industry in an attempt to develop the competencies of employees entering agricultural occupations in agribusiness and renewable natural resources, as well as the continuation and improvement of the traditional production and agriculture programs.

I would like to refer to the traditional program for just a moment, because I believe that the programs developed as a result of the Smith-Hughes Act of 1917, included some of the most important elements needed for the development of employees for the field. For one thing, it was dictated that supervised occupational experience be included as a part of the instructional program. There is some indication today that a large percentage of those teaching at the local level no longer believe that this is important. I think we as a profession need to do something about this, not only for production agriculture, but for all occupations in the industry of agriculture. The Smith-Hughes Act also provided for many more basic needs, such as qualified personnel at all levels. Legislation passed since 1917 contained a philosophy that programs be extended to persons of all ages in all communities, both urban and rural, who could benefit from them. It did not continue to require the basics of the past. I happen to believe this was a mistake.

The agricultural situation has changed drastically since 1963 and 1968. As I have indicated, we have had a series of national seminars to address many of these changes, both in the profession and the industry. We are continuing to do so. Changes in the agricultural situation have caused

concern about adequacy of food, feed, and fiber supplies. This situation represents a 180 degree turn around when compared to the overproduction, large surpluses, support prices, allottments, and ended markets, that existed prior to and during the 60's. Changes affecting producers have had similar affects upon the agribusinesses which provide supplies and services to farmers. All segments of the agricultural industry are faced with baffling problems, such as high production and marketing costs, expensive labor, cost of energy, new challenges in management, and the ability to hold the soil, maintain clean air, provide clear water and attractive landscapes. Implications of the current long range situation in agriculture and agribusiness point to the need for more adult vocational education as well as indepth specialization at the secondary and postsecondary levels to adequately prepare for entry and advancement in these increasingly important complex occupations.

As we begin this seminar, we must continue to focus on the projected manpower and education needs of the agricultural industry. We must identify and train for the new and emerging occupations in the industry. We should not overlook the traditional occupations. We must uphold high standards of instruction at all levels including secondary, postsecondary, and adult. The development of competent leadership, among all secondary and postsecondary students, is essential. The need for well qualified teachers must be met and I believe we will meet this need. These teachers must be continuously updated in domestic and international agricultural demands as well as professional and technical practices.

It was said recently by Dr. Alex Mercure, Assistant Secretary of the Department of Agriculture for Rural Development, that "the school is still the one viable institution in the community that can respond to the needs of that community and, within that school, vocational agriculture and the Future Farmers of America is the one delivery system that is left that can assist the community in identifying its needs and assist in solving its problems." I think this sums up where we are today. If others outside of our profession recognize this in us, we surely should recognize it ourselves. Let's accept this as a challenge and move forward with the opportunity we have during the next two days to work toward the solution to some of our problems.

TRENDS, ISSUES, AND NEW DIRECTIONS IN EDUCATION
AFFECTING AGRICULTURAL EDUCATION

Arthur Mallory
Commissioner of Education
State of Missouri

Everyone I know would like to find someone, or be the person, who can look into the future and predict with accuracy those events which will transpire. Old Testament prophets were killed for doing so; therefore, I'm not sure if I could see clearly if I would share my vision with you because prophecy is a dangerous business. However, as suggested in your program, there are some trends, issues, and directions about which we should be thinking and are worthy of discussion.

To properly see the future we need to take a look at our past and review the history and purpose of public education.

Probably the most important trend in our society today -- the one which will have the most profound implications for all of us in this room -- is the fact that our population is getting older. For educators, of course, this trend is most clearly revealed in the phenomenon of the 1970's known as declining enrollment. Public school enrollment in the nation dropped about ten percent during the past decade. While some communities and schools continue to grow, more and more are beginning to feel "shrinking pains."

Another obvious trend is the changing job market. It has been estimated that 80 percent of the jobs during the coming decade will require less than a four-year college education. In our "post-industrial society," the economy will be dominated less and less by manufacturing and other heavy industry. The trend in our economy is toward service-enterprises. Unquestionably, technology is changing everything about the way we live and work. Most people have not even begun to comprehend the impact and the future implications of technology on our lives.

The information explosion will continue and accelerate. This is another important trend. As a result, it is becoming increasingly difficult for schools to select those things which can and should be taught in the classroom. It's harder today for vocational educators to keep up with new industrial processes, new business practices, new equipment used in the work place, and rising demands for increasingly skilled workers.

Trends such as these, of course, cannot be isolated from one another. For example, if fewer young workers enter the labor force in the next few years, it's going to become vital for mature workers to receive retraining to update their skills and to become <u>re-educated</u> as conditions change. One possible outcome of this situation is a growing demand for adult education opportunities in public schools and colleges. Education must emphasize, more than ever before, training to help individuals analyze information,

think independently, reason effectively in novel situations, and be imaginative and creative. Textbook solutions alone will not be adequte.

A fourth important trend concerns one of our most basic institutions - the family. As a result of increasing divorce rates, rising numbers of unwed parents, the growing number of two-career families, changing moral values, and other factors, one of the anchors of our civilization -- the family -- has lost some of its stabilizing force. Compounding all of these influences is the hectic pace of contemporary life. Teachers and school officials today, for example, find it difficult to involve parents in school activities. Parents are too busy in the evening to come to a meeting at the school.

Despite the fact that the average educational level of our population is higher than ever, many parents today simply are not adequately prepared for their responsibilities. Because of the increasing number of births among teenagers, we have the phenomenon today of "children raising children." Also, the singleparent family is more common today. A man or woman who runs a household alone and is responsible for one or more children faces enormous pressures. Educators must understand the needs of the single parent. Many families today feel helpless in trying to instill positive attitudes and values in their children when society at large, peer pressure, and television bombard them with conflicting values and role models. Clearly, the changing structure and role of the American family is a trend with great implications for all of us.

These are some important trends; we could probably name a dozen more. Trends such as these, however, will create a climate of constant tension for leaders in the public and private sectors during the future. All of us will have to keep abreast of such trends and be prepared to deal with them.

The Issues

The trends in our society are largely beyond our individual or immediate control. What we must do is identify the important issues associated with them. Issues can be isolated and often we can do something about them. The essence of leadership, though, is to identify the fundamental issues and to take appropriate actions.

Without question, the cost of all services will continue to rise during the coming decade, including services provided by government. Dollars for public education will continue to be squeezed between the growing mood of fiscal conservatism and the rising cost of maintaining a quality educational program. The rising cost of education, in the face of declining enrollment, is difficult for many citizens to understand. I have a unique appreciation of the bind schools are in today. We know that because of inflation, fixed costs, and other factors, a small cutback in one part of your operation won't necessarily lead to a lower unit cost for the product or service provided. The financial pressures on schools, which are severe in some communities today, could become acute in the future as the number of families with school-age children decreases, thereby diminishing the traditional base of strong support for school funding.

Financial tension will continue to plague school managers, and has had a definite impact on the salaries of teachers. I believe this country receives no greater value for tax dollars than those which are invested in the salaries of school teachers. Collectively, teachers have more influence on a greater number of people than anyone else. The fact is that teachers today are subsidizing the educational programs in our Nation to a large degree.

According to the Missouri State Division of Employment Security, for example, (and incidentally, these statistics may be pretty close to those in your state) the average hourly earning for a classroom teacher (based on eight hours per day for 180 days per year) is $8.85. Some teachers earn an hourly wage as low as $4.48. By comparison, bricklayers earn an average of $10.26; electricians about $11.40; and plumbers about $12.00. Teachers, on the average, do earn more than domestic workers, who have an average hourly earning of about $7.00.

The Nation is losing talented teachers -- primarily men -- from the teaching profession. This is another critical issue that is just beginning to become apparent. We've talked in Missouri about a shortage of vocational agriculture teachers. Vocational agriculture graduates can earn much more in agribusiness than in teaching. According to reports from school superintendents in Missouri, we are losing teachers not just to private industry, but also to the teaching profession in other states. The number of subject areas in which teacher shortages exist is growing. The information we are receiving from colleges around our state indicates that enrollment in teacher education programs is declining and that shortages are likely to worsen in the future. This issue also relates closely to the matter of cost, which I have just mentioned. If the supply of teachers does drop in the future, it will be difficult to attract qualified men and women to the profession with today's prevailing salaries.

A third issue is the demand for academic excellence. Schools today are doing a good job teaching the basic skills, and we are going to get better because parents and community leaders are demanding it. Obviously, elementary and secondary schools cannot teach everybody everything. Without a foundation in basic academic skills, history is incomprehensible; an hour a day in science class is sheer frustration; and the value of literature is lost. Universal learning of basic academic skills will continue to be a central part of the quest for academic excellence.

Closely related to the demand for academic excellence is a fourth issue: "What will we teach?" Because of the knowledge explosion and the growing pressure on schools to include more and more in the curriculum, we have to ask ourselves what we want the schools to look like in the future. Can we, realistically, meet <u>every</u> expectation? Can schools continue to offer all of the services which citizens now take for granted, but which will certainly cost more in the future?

In addition to questions about what should be taught, the schools also must cope with rising public expectations for other services as well. Schools are now in the food business, in the transportation business, and in the business of trying to promote social goals. The list of nonacademic

expectations for the schools could go on and on. Rising expectations of the public schools must be evaluated realistically.

Perhaps the single most important issue which faces our society today is the fading of the work ethic. The attitude of our citizens toward productivity, toward doing a good job, and toward "going the extra mile" has weakened significantly in recent years. "Our government" has so enthusiastically supported the goal of equal participation in American affluency -- in return for meager to average efforts -- that the work ethic has literally been sapped from much of our work force. We have grown accustomed to looking to Washington for solutions to many of our problems, instead of turning inward and relying on our own ingenuity and efforts to produce better and give more.

We are looking to Washington now for a quick, painless solution to the energy shortage. There is none. We are looking to Washington now for a quick, painless solution to inflation. There is none.

It is up to us as individuals, as educators, as businesses, and as communities, to get a grip on energy shortages and inflation. To do so, all of us will be required to buckle down and work harder, to stress and reward productivity. We can "turn it around" only if we can build a positive attitude toward productivity and hard work as youngsters go through school.

The Challenges

I have outlined a few trends and a few important issues. Now, I would like to propose three challenges for the future.

First, we must create a "full partnership" that involves business, industry, agriculture, labor, the professions, and the family. Our challenge is to find creative ways for all of these segments of our population to cooperate and to help improve education during the 1980's. All of these groups, must accept and share responsibility for the public schools.

I would like to see business in the private sector take the lead in this area. For example, a corporation could work with school officials to establish times which representatives of a school could come to the workplace and meet with all the parents who have children in school. This is just one way to cultivate a full partnership, and it is a step toward creating an awareness that school is an integral part of the community.

Business, industry, agriculture, labor, and the professions can provide excellent "classroom" experiences for students. By working more closely with school officials, the private sector also can help interpret labor needs and can assist students in planning their education to meet labor market demands.

Our second challenge for the future is to recruit and train a high quality teaching staff. In any labor-intensive business, the product or service will be only as good as the staff. Teachers are professionals who require extensive pre-entry training for licensing and continuing professional development. Teacher salaries have not kept pace with inflation, not with the earnings of other occupations. Because of the apparent decline

in the number of prospective teachers for the future, it is absolutely essential for us to recognize this challenge.

What we, as a society, are willing to pay our teachers is a very fundamental issue. The priority which we give this issue is, in great measure, an indication of our commitment -- or lack of it -- to our children.

Our third challenge for the 1980's must include a renewed dedication to hard work, quality workmanship, and productivity. Our country was built upon and has grown strong as a result of our commitment to the work ethic. We have prospered as a nation because our people have been willing to do more than a full day's work for a full day's pay. We have prospered because we have rewarded and encouraged productivity. Today we see examples of rewarding nonproductivity. By example and instruction, we must resurrect the work ethic. It must be the school's responsibility not only to teach a proper attitude but to demonstrate how increased academic productivity can be achieved.

In conclusion, let me do what every good teacher does at the end of a lesson; that is, summarize the points.

I listed four trends which I believe will have profound impact on all of us in the future:

1. Population changes and the rising average age of Americans.
2. Changes in labor market demands and in the characteristics of our economy.
3. The information explosion and technological progress.
4. Changes in family roles and structures.

I also described what I believe are five critical issues which we as educators and community leaders must face during the coming years. These issues are:

1. Money. What services will be provided in the future and how much are we willing to pay?
2. Teachers. How shall we attract, retain, and compensate a high quality teaching staff?
3. Academic excellence. This will remain an essential issue.
4. Rising expectations. Recognizing the changing needs of our society and growing expectations from every quarter, what do we want our schools to look like during the 1980's?
5. Productivity and the work ethic. If we expect to solve problems, such as inflation and the energy crisis, we must devote ourselves to the job of reaffirming the work ethic. This is essential not only for individual success but for the continued well-being of our society.

Finally, I have suggested three education challenges for what I hope will be "The Magnificent Eighties." They are:

1. Creation of a "full partnership" in order to bring all segments of our population together and to help create an "aura of educational success" for every community.
2. Our second challenge is to recruit and retain a high quality corps of teachers.

3. Renew our dedication to bring more productivity in and out of the schools and to a work ethic which will make this productivity possible.

These trends, issues, and challenges for public education are worthy of the 1980's. I have not attempted to provide a final answer to each case and should not for, indeed, the right answer will not be the same answer for each school and community.

TRENDS, ISSUES, AND NEW DIRECTIONS IN THE AGRICULTURAL INDUSTRY AFFECTING AGRICULTURAL EDUCATION

Dean A. Raber
Senior Vice President
The Federal Land Bank of Omaha
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The shoebox farmer is dead! The reign of the farmer worth a half-million dollars who keeps his/her records in a shoebox is over. There'll be no time to mourn the shoebox record keeper (just a simple service) because we in agriculture have to move on. We have to prepare for adapting to changes in agriculture. Changes! Changes! Changes! That's all we often seem to hear!

Changes in agriculture have lead to the shoebox farmer's death. Those same changes dictated a need to adapt by those associated with agriculture. This applies to ag educators like you, to the ag bankers like me, and to ag equipment manufacturers and chemical companies. Some agribusinesses made those changes and adapted, like the Elancos, the John Deeres, the Land Banks, and some didn't, like Ace Harness Company, the Peerless Grain Scoop Company, and the Great Plains Butter Company. Of course, there are hundreds of thousands of farmer's names on the list of those who didn't adapt.

Agriculture is no backwoods operation any longer. You can't make it by the sweat of your brow and decent weather alone. Farming in the future will be accomplished by pros who will be sophisticated business managers. Even today the most progressive farmers snap up every justifiable invention and innovation that modern science produces. This has been particularly true in production agriculture, but not so true in the management end of the business of farming.

The farmer still sweats, but the sweat of the best managers no longer falls exclusively on dusty fields. It might just as well drop on his/her multi-memory calculator as he/she completes his/her annual cash flow sheets, or it might splash on his/her long-range planning file, or it might smudge the white paper he/she has prepared on hedging strategy.

But, you know all that. You know where we've been and the changes we've seen. You know about adapting that has been required and how every population segment has its dinosaurs who don't adapt. Has ag education kept pace with the evolution of modern agriculture? A bigger question is: Are you prepared to change even more in the future as progressive farmers adapt to new trends? Let's take a quick and cursory look at a few of the trends in rural America before we specifically attack these questions.

Depending upon who you're talking to, the U.S. has between 800,000 and 2.3 million farms. That's quite a disparity of opinion! The count depends on your definition of a farm. There are small farms, medium-sized

farms, large farms, part-time farms, full-time farms, family farms, corporate farms, hobby farms, limited parnerships, tax write-off farms, hill farms, flat-land farms, and river farms. Any kind of analysis of what tomorrow holds for rural America for ag educators, and for the Land Bank depends heavily on what you call "a farm." I'm a nut on this subject, and I strongly feel that the situation demands clarification. And I feel that it can best be clarified by using two definitions -- one that identifies commercial farms and one that characterizes non-commercial farms, which I'll call part-time farms because they are usually smaller and generally do not keep the owner-operator fully employed. I define a commercial farm simply as one which generates $40,000 or more of gross farm income each year. In my opinion it takes at least $1,000 of ag sales to make a farm at all. Anything from $1,000 to $40,000 in annual ag sales is a part-time farm. Anything over $40,000 is a commercial farm. That's pretty easy to remember and I feel there is logic to justify my contentions.

According to the 1974 ag census, commercial farms accounted for about 500,000 farms which was about 20 percent of the 2.3 million farms in the U.S. It's interesting to note that they produce 80 percent of all agricultural products sold in the U.S. On the other side, according to the 1974 ag census, there would be 1.8 million part-time farms, as I define them. They make up 80 percent of all U.S. farms, and they produce 20 percent of all U.S. farm products sold. With these two definitions, and the accompanying delineations, I feel that it is easier to get an overall view of what makes up rural America. After doing this, I feel it is easier to develop policies, programs, and assistance specifically designed for the two different groups.

These two groups truly have different needs. The person I described a little bit ago with the calculator, cash flow sheets, and the white paper on hedging, falls in the commercial farmer category. His/her needs differ vastly from the part-time farmer. The commercial farmer needs to operate in a true business environment for after all, his/her livelihood depends solely on the quality of business decisions he/she makes on the farming operation. Decisions are made about what to produce and how to produce it, what inputs to purchase and where, how and when to market, and how to use various inputs, including credit to the best advantage. He/she wrestles with matters like how to organize the business and how the business will handle various tax liabilities. The commercial farmer faces daily business decisions which would have boggled the mind of farmers just a generation ago. He/she finds it necessary to continually adopt more sophisticated techniques.

The operator of the smaller or part-time farm doesn't need the same degree of sophistication in his/her farming decisions because his/her financial well-being is not primarily dependent upon agriculture. A high percentage of his/her total income comes from off-farm sources. The rural life style is appealing. He/she is more concerned about the availability and dependability of non-farm income than about commodity prices. A recent study in the four-state area served by the Omaha Land Bank indicated that nearly all part-time farmers, as I have defined them, have non-farm income and that it averages about $24,000 per family. In contrast, less than 40 percent of the commercial farm families have non-farm income, and it averages only $6,000 a year for those who do have it.

Okay, what does all of this indicate?

Does it mean that rural America isn't dynamic, that we have too few commercial farmers, that we have too many part-time farmers, that part-time farming isn't a life style to be sought after, or that the family farm is fading from the scene?

I think all of these conclusions are wrong! I feel that the American public must be informed that commercial farming is not a way of life. It is a business, and a very dynamic business at that! The American public (and Congress) should be reminded of what commercial agriculture does for our nation and world. While we're doing this for the commercial farmer, we shouldn't ignore the part-time farmer. We should point out that part-time farmers are solid citizens who work very hard at two jobs and have very productive lives. They are making these sacrifices so that they can enjoy a life style and surroundings which they want. Finally, we should remind everybody that both of these groups are dominated by "families." However, we have commercial farms and part-time farms and not family farms.

The point of all of this is that we've got, according to my definition, two big classes of people in rural America: Commercial farmers and part-time farmers. These two groups of people have different goals, different paths to be followed, different problems to be solved, and different needs to be met. I have the utmost respect and admiration for the people in both groups. My organization, the Land Bank, is committed to serving people from both groups. We think we do equally well in serving both part-time farmers and commercial farmers. In my opinion, commercial farmers and part-time farmers have to be treated differently because of the differences between them. Although I have not studied it in depth like many of you, I have an idea that part-time farmers of the future will need help in areas tending toward the socio-economic side and that commercial farmers will need help in areas tending toward business management.

First, let's take a look at a few of the socio-economic issues which part-time farmers will probably be facing in the future. Many part-time farmers live near town. They are interested in and heavily affected by land use planning, zoning, and taxation matters. Chances are they'll experience added pressures and uncertainty about these matters in the future simply because of where they live. Who is going to help them deal with these matters in a knowledgeable way? Who is going to prepare part-time farmers of the future to deal with a changing rural environment? What is to be the role of the ag educator?

A part-time farmer still needs to plow fields, spread fertilizer, plant seeds, and care for livestock. But when a part-time farmer in our part of the country goes to the implement dealer, he often finds equipment designed to handle 600 acres instead of 60 acres. And, it may be impossible for him to take advantage of energy-efficient, minimum tillage equipment because most of it is designed for larger farms.

Speaking of energy-saving measures, part-time farmers will be hit twice as hard by energy shortages. Remember, he/she not only has to produce a crop or livestock, but he/she also has to get to work in the city

everyday. Job dependability is another problem for the part-time farmer. It's a big one because he/she depends so heavily on the off-the-farm paycheck. In addition, he/she may have more than a passing interest in the reindustrialization of America, including the ability of unions and businesses to work together and the equitable handling of the foreign import situation. His/her job and paycheck depend on the solutions which are bound to these problems. Who is going to educate him/her and at what age to deal with these matters?

Yes, and the part-time farmer may face never-ending decisions about career plans. Should he/she give up the country altogether and move to the city or is the life style worth the battle of holding two jobs? Another question is he/she making enough headway in agriculture to buy or rent more land and become a full-time farmer? Our Land Bank information shows that many do go from part-time to commercial farming.

Who's going to help part-time farmers? Who's going to supply that delicate mix of socio-economic information and education needed by people who will have one foot in a manufacturing plant and the other in a bean field? I'm sure you know that this is one of the areas you'll need to be studying at this meeting. You better pay pretty close attention to these part-time farmers because I'm afraid that agribusiness isn't going to do much for them. After all, part-time farmers don't buy many big tractors, they don't use hundreds of gallons of chemicals the way that sophisticated commercial farmers do. As a result, a lot of agribusinesses and farm media people pay very little attention to them. I'm pleased to say that the Land Bank System continues to feel that part-time farmers are a viable and important part of rural America.

Now let's take a look at that commercial farmer. Competition is going to get tougher and tougher for the commercial farmer. There'll be competition for land, for water, for energy, for credit, for transportation, for markets. The commercial farmer will need to get sharper in dealing with these matters because of competition with everything from big business to foreign investors. Decisions will spell success or failure because they are solely dependent upon the results of their farming operations. They will need to make sound, quickly-arrived-at-decisions. I don't know of any manager any place who makes good decisions without having good information on which to base those decisions. I don't know of any manager any place other than agriculture who keeps that information in a shoebox.

Who's going to equip commercial farmers with the tools needed to compete with sophisticated businesses on these matters? Who's going to make commercial farmers throw away their shoeboxes and develop sound record keeping and planning systems?

Agribusiness can probably help. Commercial farmers have for some time been turning to the DeKalbs, the Monsantos, the Farmland Industries, and the New Hollands to increase their knowledge of seeds, feeds, chemicals, and equipment. Now, perhaps, people in the ag credit business can start demanding good records before extending credit. It's already being done by commercial banks with larger businesses. It's either "have the records or forget the credit." I've said that the commercial farmer is a "business

person." If that is true, why shouldn't they keep records and handle their business just like big business? But doesn't a big part of the job belong to ag educators? Shouldn't you be doing more to make commercial farmers of the future better business managers?

Now, I'm sure that some of you are saying to yourselves, "Who does this guy think he's talking to about the subject of record keeping?" I'm sure you're saying, "We're the people who have been pushing farm records for more than a half century. We're the ones who taught the importance of records to multiple generations of vo-ag students. We are the ones who have sponsored record keeping contests. We're the ones who stressed the importance of good records to high school and adult classes when people didn't even know what records were."

Yes, I'm aware that you've done all of those things. I know you've worked very hard at selling the importance of farm records! I'm just saying that you ain't done yet! I'm saying that your "teaching" didn't "take" with a few of your students. I'm saying that there are a heck of a lot of people in commercial agriculture today who didn't hear you the first time.

Let me give you the scenario. Last year The Federal Land Bank of Omaha made about 6,000 loans to commercial farmers. This represented about 2/3 of all long-term loans made by institutional lenders in the states of Iowa, Nebraska, South Dakota, and Wyoming. We think we get our share of the cream of the crop farm and ranch operators as customers. Of those 6,000 loans, only about 900 or 15 percent had records which could be classified as amounting to very much. In other words, those 900 had records which would give a pretty good view of where they had been, where they were today, how they moved from the starting point to today, and how they had made their money. Some of their records were nothing fancy. They were an accurate representation of what had taken place. They were serving the farmer extremely well in the decision-making processes. Some of the records were very sophisticated, such as from CPAs and electronic record keeping services which were sometimes tied into land grant colleges.

Then there were 5,100 commercial farmers or 85 percent of our borrowers who were shoebox record keepers. That's right, 85 percent of our borrowers last year had nothing more than basic income tax papers to show how they had done with their operations. In many cases, income tax returns simply can't give a clear view of what's happening in the operation. Can you imagine 5,100 farmers who had assets averaging more than $800,000 - a lot of them cream-of-the-crop type farmers and ranchers, the top agricultural producers in the world, leaders in their communities - with virtually no records or business planning system. They're shoeboxers all the way. It's a modern day rural American tragedy when you have businessmen like this who are the best at their profession in the world and they don't keep records. These people averaged 45 years of age. They were in your vo-ag classes 30 years ago. I was there, too, and I'm here to announce that your "teaching" on record keeping didn't "take" with a few of my classmates!

When we asked those 5,100 people for their records, their faces went blank. Many of them got apologetic. We heard stories about how tough it is to keep records and how boring, time-consuming, and expensive records are.

Some even said it was a big waste of time! Most of them know that records are needed and they feel guilty about not having them. We could have, and in some cases did, ask these people to develop a 3-year income and expense projection based upon the actual results for the past 3 years. Very few of them even tried and even fewer, of course, could do it. That's understandable with the meager information they had at hand. Some of those who did go through the motions were merely developing a dream-life future based upon a fictional past.

You're probably saying "How in the world could the Land Bank justify making loans to those 5,100 people?" Well, our loan officers picked up what pieces of factual information they could find and assisted these farmers in developing annual financial statements for the past few years. They also produced some income and expense statements for the past several years using parts of the tax returns. They then used these reconstructed records as the base for some projections for the future. Now that takes a lot of time! And I should point out that hundreds of farmers were assisted with such projections. When they saw the results, they decided they didn't want a loan because they felt they wouldn't be able to repay it. We call all of this our Land Bank philosophy on sound and constructive credit, but it is difficult for us to provide sound and constructive credit unless applicants have adequate records.

The Land Bank and other ag lenders can encourage farmers to be better business managers and record keepers, but it's hard to demand that loan applicants have adequate records when only 15 percent of all farmers have them.

So maybe lenders can do a better job of encouraging better records. We can't do it alone. That means that ag educators are left with a big portion of the job of replacing the shoebox farmer with something a little more modern. You've done big jobs before, and you've done them well. You taught American farmers how to produce. You taught them how to produce so well that they are the envy of the modern world.

In my opinion, ag educators must now turn their attention from production agriculture to management. I talk to quite a few progressive commercial farmers during a year, and I hear more and more of them saying that if they went back to college today they'd major in business or accounting or computers. That should give you some clues as to where the need is.

So, I feel tomorrow's commercial farmer needs specialized management training that is heavily laced with accounting, computer usage, hedging, marketing, and long-range planning. I don't know what age groups you'll want to aim your programs at. I don't know if you'll even want to try to teach the new tricks to that shoebox farmer. If you do, I'm sure it'll take a lot of workshops, seminars, night classes, contests, and joint programs with agribusinessess. I can almost guarantee that the Farm Credit System would be willing to assist with a meaningful program. I'm also sure that you'll have to promote the heck out of your program. It'll have to be dynamic stuff because young and old rural people alike aren't going to take to record keeping that easy. They've been fighting it for a long time. It's time to win the battle. Farmers with $800,000 in assets can't go on with shoebox records! Generations ago, ag educators didn't have it

all that easy either such as selling mechanical agriculture, hybrids, chemicals, and immunization. A lot of small triumphs let you win the big battle of efficient agricultural production. In this new game of effective business management you're fighting the biggest battle of all, the one of economic survival. Remember, you're helping arm the American farmer who's pitted against professional planners, entrepreneurs, and world businessess. Your new role will help commercial farmers compete successfully for land, water, energy, markets, and economic survival. It's time we laid that shoebox farmer to rest before he/she breeds a new generation.

Ag educators across our land should apply themselves to the solution of one major problem for each of two major groups in rural America!

1. You should help current and future generations of part-time farmers deal in a more knowledgeable way with a wide array of socio-economic problems which face them and,
2. You should help current or future generations of commercial farmers become better business managers, particularly better record keepers and planners.

THE ROLE OF THE VO-AG TEACHER

John Murray
Area Vocational Agriculture Coordinator
Jackson, Minnesota

The Agricultural Education Policy Committee of the American Vocational Association at its March, 1979, meeting authorized the establishment of a task force to develop a policy statement on "The Role of the Vo-Ag Teacher." The goal of the task force was to complete the policy statement prior to the March, 1980, Policy Committee meeting. The policy statement is also to be incorporated as a part of the National Seminar on Vocational Agriculture to be held in Kansas City, Missouri, July 15 - 17, 1980.

A committee of four teachers was primarily responsible for developing the criteria with the aid of consultants in development, editing, and review. The actual writing was developed from each of the teacher's own perceptions of the role of the teacher of agriculture.

Committee members and consultants included:

John Murray - Chairman and Adult Education
Richard Weber - Secondary
Carroll Shry - Secondary
Eric Arnston - Postsecondary
Ozzie Gilbertson - Consultant
Ralph Dreesen - Consultant

The following are the perceptions of the role of the vo-ag teacher as seen by the members of this committee.

Background

Much has been stated, observed, and researched over the past few years concerning the shortage of vocational agriculture teachers and teachers leaving the profession. Much rhetoric has been used concerning the role of the agriculture teacher and the many jobs a "good" agriculture teacher performs in his/her local community. The workload has continued to increase. There has been little, if any, reduction in old responsibilities, concerns, and activities as new activities or responsibilities have been added.

There has also been a gradual change in the work ethic in this country. It is becoming increasingly difficult to find the commitment to work the longer hours required to develop an outstanding program. The early vo-ag teachers put in long days much like farmers and ranchers of that day. Times are changing along with the work ethic.

When a successful vo-ag teacher has the opportunity to enter another occupation with perhaps more money and less working hours, many do not hesitate to move. This has always happened and will continue in the future.

Each person has his/her own limitations, and the teacher of agriculture is no exception. When one attempts to shoulder all the responsibility for a successful program alone, the individual loses effectiveness and the program suffers. The students and the community are the real losers.

Through shared responsiblity and an orderly arrangement of priorities, the instructor can secure relief from being overburdened while at the same time accomplishing more. This priority setting also assures that instructors have some time to spend with family or friends. Worry about unmet professional obligations can be minimized. This assurance of realistic job expectations in itself reduces tension and minimizes the frustration which one faces whenever the work load is unbearable.

Development of people is a prime responsibility of the teacher. How else can this be done except by allowing them to share the load, make decisions, and live by the results of their decisions and activities? Some sharing of responsibility can be accomplished through the use of para-professionals and in some cases advanced students. It is true that the task will not always be accomplished in the exact manner of the former teacher. Individuals grow through participation. It is equally true that numerous things would not get done if they all had to be done by the teacher of agriculture.

The teacher in vocational agriculture may possess a bundle of energy, have enthusiasm to spare, and an unclouded vision of what can and should be accomplished. This is the type of worker the local administration dreams of employing. Each of these characteristics is noteworthy and commendable. Even with these qualities, the instructor may be an ineffective leader and a poor developer of the educational program in agriculture.

It is essential for teachers to realize that the important thing is to get the task done, not who accomplishes it. Carrying the entire load is a needless burden when others are available and willing to assist. Delegation is far more worthwhile and inviting than frustration and stagnation.

By concluding that assistance is needed and then arranging for sharing the burdens, the teacher accomplishes more while conserving energy for the essential tasks.

Philosophy needed by all Teachers

The program of vocational agriculture is concerned with all of the people in the school area who are engaged in or are preparing to enter agricultural occupations. Agricultural education stresses the individual. The type of instruction, course content, and learning activities are determined by the occupational competencies required. Agricultural education programs provide an opportunity for the school to spread its influence into the homes and businesses in the total school patronage area. Instructional programs are conducted on a year-round basis to take advantage of the opportunity to develop specialized competencies which are seasonal in nature. The total resources of the community are utilized to provide relevant and meaningful educational experiences for students. The use of advisory committees has always been advocated by agricultural educators. Students are taught the decision-making process in addition to the manipulative skills needed in an agricultural occupation. Individualized on-job instruction is an integral part of the instructional program at all levels. Specifically, vocational agriculture/agribusiness teachers are concerned with: secondary school students, postsecondary students, out-of-school youth, adults who wish full-time vocational and technical education in agriculture for entry into agriculture, employed youth and adults who need vocational-technical education in agriculture to upgrade their occupational performances, and those youth and adults who because of social or economic handicaps cannot benefit from regular vocational-technical education programs in agriculture.

Major Program Objectives Perceived by Teachers of Agriculture for Their Students

A. To develop an understanding and appreciation of the career opportunities and the preparation needed to enter and progress in agricultural occupations
B. To develop the competencies necessary to secure satisfactory employment and advancement in an agricultural occupation, including entrepreneurship
C. To develop those human relations skills and attitudes required for success in an agricultural occupation
D. To develop leadership abilities and civic responsibilities

Functions of an Agriculture Teacher

A. Provide instruction for youth and adults
    1. Secondary
        a. To explore careers in agriculture
        b. To develop competencies needed by individuals engaged in or preparing for entry into an agricultural occupation, including entrepreneurship
        c. To prepare students for postsecondary education in agriculture
        d. To plan and develop occupational experience programs

2. Postsecondary education
   a. To develop specialized competencies in agricultural occupations which prepare graduates for employment, including entrepreneurship
   b. To plan and develop occupational experience programs
3. Adult education in agriculture
   a. To upgrade the competencies of established farm operators in order to increase their efficiency and to assist families in achieving their family goals
   b. To provide upgrading and updating of those employed in agricultural occupations
   c. To provide and conduct a farm business management education program
   d. To provide specialized courses in specific enterprises and/or agricultural technology and agricultural mechanics

B. Be responsible for the Future Farmers of America Chapter, Postsecondary Agricultural Student Organization, and/or the Young Farmers and Ranchers Association
C. Organize, administer, and maintain the department
D. Conduct a school and community relations program
E. Develop the program based upon the community needs assessments
F. Provide for student guidance, placement, and follow-up activities
G. Participate in appropriate professional activities

Instructor Qualifications

A. Secondary and adult
   1. Bachelor of Science degree in agricultural education plus agricultural experience
B. Postsecondary
   1. Bachelor of Science in technical agriculture or agricultural education plus experience in the occupational area taught

Future Concerns and Needs

Areas of concern include the following:

1. Supply of qualified instructors
   a. Qualifications for instructors are similar to those demanded by agribusiness and industry and many are hired to work in industry immediately after graduation or after teaching 1-5 years
   b. Economic opportunities in farming or ranching reduce the number of instructors available each year
   c. The "excess teachers" syndrome in other fields has influenced the decision of students not to pursue teaching
   d. Use of emergency certified teachers
   e. Fewer vo-ag teachers will come from farm or ranch backgrounds
   f. Teaching vocational agriculture is not a long term goal for many persons who complete an agricultural education degree program and seek initial employment in vocational agriculture education

g. Teacher preparation in our undergraduate teacher education programs is geared primarily for secondary preparation with little or no emphasis on adult and postsecondary teacher preparation

2. Funding
   a. Declining enrollments in many rural areas has meant inadequate financial resources to adequately fund educational programs in agriculture/agribusiness
   b. Salary for teachers of limited experience is only adequate, and is not highly attractive in comparison with other agricultural-related employment
3. Opportunity for advancement
   a. Limited within profession
   b. Incentive awards for professional program excellence are generally FFA related and are geared for secondary teachers
4. Workload
   a. Teacher bargaining laws within states are causing pressures for reduced workload
5. Decreasing emphasis in providing for supervised occupational experience programs for students
6. Lack of adequate agricultural manpower needs information
7. Erosion of program area identity
8. Decrease in state staff for supervision and administration of programs
9. Budgetary/staff cutbacks at teacher education institutions
10. Decreasing enrollments and its effect on departments/programs
11. Increasing proliferation of FFA activities which require more instructor time
12. Reduction in year-around programs and contracts for teachers
13. Increasing legislative mandates
14. Erosion of national and state leadership

Areas of need included the following:

1. As the industry of agriculture/agribusiness changes in the future, so must the vo-ag teacher change to meet the needs of a declining student population.
2. Teacher preparation at the undergraduate level in teacher education institutions must encompass all levels of instruction in agriculture, including secondary, adult, and postsecondary.
3. Multiple teacher departments and differentiated staffing are necessary to meet the ever changing complex needs of the industry of agriculture.
4. Funds from agricultural industry in the form of scholarships, including forgiveness of loans, are needed to retain more of the teachers in the profession.
5. The profession should recognize more teachers for their excellence in teaching.
6. Professional award programs developed and offered by our professional vo-ag teacher associations must permit teachers at all levels of instruction to compete equally for such recognition.

7. Inservice needs:
   a. Every teacher must be kept up-to-date on the ever changing technology in the industry.
   b. New developments in agricultural industry may impose the need for the agriculture teacher to provide special training programs, such as the licensing of pesticide applicators and energy conservation.
   c. State staffs, teacher educators, and agriculture teachers must work cooperatively to develop viable programs to meet the needs of the teacher.
   d. Updating the technical competence of teachers by use of industry leaves is needed.
8. Since legislation mandates that teachers serve special education and disadvantaged students, a comprehensive preservice and inservice instructional program must be developed in these areas.
9. A comprehensive program in preservice and inservice education should be developed for the teachers of agriculture regarding the management of time and priorities.
10. Ways need to continue to be found to make the professional organizations serving vo-ag teachers (NVATA, AVA, state vocational education and ag teacher associations) more relevant to the needs of membership.
11. Ways need to be found of meeting the needs of programs and new areas of employment.
12. A public relations program should be developed/expanded which includes:
    a. publicity of students, parents, schools and business community
    b. positive relationship with local newspapers, T.V. and radio to publish departmental activities
    c. involvement with farm organizations such as the Farm Bureau, Grange, Farmers Union, and others
    d. a systematic program of information to inform legislators of activities in educational programs of students
13. Vo-ag teachers should be continuously involved in professional improvement through such activities as:
    a. involvement in their professional organizations such as NVATA, AVA, state vocational education and ag teacher associations
    b. ag teacher conferences which offer technical short courses and upgrading workshops that will help improve instruction in the classroom
    c. technical and professional graduate courses with practical application to the classroom situation
    d. planning committees and/or advisory councils to help identify new advancements in the field, necessary resources, and equipment to improve the teaching situation
    e. use agriculture teachers in the writing of the texts to be utilized in the classroom
14. Guidance, placement, and follow-up activities are needed relating to our clientele
15. Continuing to develop and secure effective legislation to insure quality programs is essential

Summary

The teacher of agriculture at all levels is a catalyst. It is important to provide positive motivation and inspiration to the students while they are working.

Vo-ag teachers must be properly prepared to provide classroom instruction. Innovative approaches need to be used to develop the students' competence and enhance their interest in their chosen field of endeavor.

As the student is studying and learning in the classroom, the teacher must provide for practical laboratory activities, on-the-job training experiences, or supervised occupational experiences, and personal development activities.

AGRICULTURAL EDUCATION AS PART OF THE PUBLIC SCHOOL SYSTEM

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The year 1980 is a time when everyone seems to take a moment to reflect on the past and prophesy about the future. You have been a part of this nostalgic scene as various program achievements in which you have been involved have been summarized and new goals established for the future. In keeping with this trend, it is appropriate that we review our achievements and establish new directions.

My task over the next few minutes is to present and discuss agricultural education as part of the public school system. I am reminded of a statement made by Dr. Ralph Tyler on trends and issues in public education. He said, "No one can predict future trends and developments with any accuracy. One of the things we have learned over the generations is that the future is always full of surprises. There will always be inaccuracies in any effort to predict the future over any length of time." To describe the mission of agricultural education in the public school system is much like the statement made by Dr. Tyler. Any educational program is based on certain social and educational precepts that are considered to be foundational to program development. If these precepts do not change over a period of time, one can fairly accurately describe a program mission. However, if they change, the mission must change accordingly. These unforeseen changes contribute to the hazards that are associated with describing a program mission.

Past Missions of Agricultural Education

What is the mission of agricultural education in the public school system? Stated another way, "What is the calling of agricultural education in the late twentieth century?" I believe a brief review of the past missions of agricultural education efforts is in order. It serves as a basis for analyzing and discussing the future of agricultural education in the public schools.

Agricultural education has been a part of our system of public education throughout the history of our country. When the Latin Grammar schools gave way to the Academies in the late 1700's, agricultural courses were included in the curriculum. These courses included the study of nature, gardening, and other subjects related to the agriculture prevalent during that time. Agricultural courses, however, were treated like other courses in the academies. The content of the courses was studied from a theoretical perspective with little effort made to relate the content to real life situations.

Dissatisfaction with the impracticalness of study in the academies on the part of the American public stimulated pressure to include practical subjects when the academies gave way to the free high school movement in the early 1800's. With the establishment of the free high school, agricultural education courses which were required of all students for graduation from high school in various states were replaced with a course called "vocational agriculture."

The change from a "general" to a "vocational" emphasis on the study of agriculture was not well accepted by certain groups and leaders in the educational profession. If you have studied the history of vocational education in the United States, you are aware of the tremendous struggle that took place to get educators to accept vocational agriculture as a part of the public school curriculum. The issue was partially settled by Congress in 1917 when they passed the Smith-Hughes Act. By providing monetary incentives, educators were more easily lured into including vocational agriculture as a part of their public school curricula.

With the passage of the Smith-Hughes Act, the vocational agriculture movement began to grow throughout the nation. The program had as its goal, "to prepare young people for employment in farming." It is evident that the bill touched a "nerve of need" because the program grew in number of programs and students served.

During the late 1950's and early 1960's, public pressure developed that once again had a direct impact on the type of agriculture being offered in the public school system. This pressure grew out of rapid changes taking place in the agriculture industry, the huge migration of people away from the farm, fewer opportunities for young people to enter farming, and an expressed agricultural program goal that insisted on preparing people to enter only farming. This pressure grew to the point, where in 1963, Congress passed another act, "The Vocational Education Act of 1963" which again provided monetary incentives that would encourage the expansion of the program to include training for entry in other agricultural occupations as well as farming.

The use of federal and state monetary incentives to encourage local schools to include vocational agriculture programs in their curricula was meant to heal divisions and lead both groups of educators, those opposed to including the program in the public school curriculum and those who supported it, to compromise on the issue so that the program could become established and allowed to serve students with interests in agriculture and agricultural employment. Today, with increased federal and state monetary incentives and 63 years of program development and experience, the divisions between these two groups still exist. Vocational agriculture programs exist in approximately 55 percent of our public schools nationwide and our critics are ever present, proclaiming that the program isn't needed and should be excluded. The latest evidence of the work of this group was summarized in a recent study conducted at Stanford University. The over-riding conclusion of that study was that with all the dollars spent on vocational education, vocational education programs were not preparing people for successful employment in an occupation and that this type of training should be taken out of the public school curriculum and placed in the hands of industry.

Throughout the "era of agricultural education." The mission has seemed to change quite drastically. Where once agricultural education was considered important for all students, it became a course of study for only those who were interested in preparing for an occupation in farming or an agricultural occupation other than farming. The narrowing focus in agricultural education was due, in the main, to stipulations set down in the congressional acts governing the use of federal dollars in stimulating programs throughout the nation. Simply, the mission of agricultural education had become one legislated by Congress.

Future Mission of Agricultural Education

What is the mission of agricultural education in the public school system as we look ahead to the year 2000? Again, we find ourselves at a time where changes in our role may be warranted and opportunities to serve those in the educational process great. As we look at the mission of agricultural education, we challenge you to think with us in a sphere broader than we have in the most recent past. The fundamental role of agricultural education is to prepare the learner to become progressively better able to be self-directing -- to be able to choose and judge for oneself on the basis of the most intelligent considerations of the alternatives, and to assume responsibility and accountability to oneself and to the community for those decisions. This role has been a guiding principle of vocational agriculture programs. How many times have you heard it said by agricultural educators that our program efforts are or should be based on the needs of students enrolled in our programs? Yet, when the content of the vocational agriculture program is analyzed, it becomes apparent rather quickly that our attention is focused on subject matter rather than learner needs.

The aspect of this situation that is of concern is the way this dimension of our role is taken for granted by agricultural educators. I recall a situation several years ago where an agricultural educator was discussing curriculum construction in agricultural education. He outlined and spoke at length about the subject matter to be covered in the course and the approach that should be used. He suggested that what was taught should be tailored to the individual needs of students. At the end of his presentation, he asked for questions. One question raised asked what he meant by student needs and how the course content dealt with those needs. His response was simply, "Everyone knows what I'm talking about. I don't need to answer that question."

I'm afraid many of us take for granted what meeting student needs means and focus our attention on the needs of the course rather than the needs of students. It is time to use the techniques and resources that characterize the profession. It is through the application of our techniques, the use of decisionmaking teaching, and utilization of experiences -- that of the teacher, the student, the community, and subject matter -- that we make our program student-centered. To assume that all students need the same subject matter in the same dosages does little in meeting the individual needs of students.

Teaching technique without content to teach, however, leaves much to be said about the education discipline. When we analyze the public school curriculum, we find that the various courses are distinguished by the content of the course offered. A course in biology is recognized by the fact that the course emphasizes the study of biological facts. A course in history is devoted to the study of historical events. In a typing course, a student should learn to type. Likewise, students studying agriculture are expected to study agricultural principles and practices.

Agricultural education at all levels of instruction should be concerned with the total agricultural situation in the United States and the world. This means that somewhere in the program, three functions must be performed.

One of these functions should be that of educating individuals for employment in the field of agriculture/agribusiness. Students should become aware of, explore, and prepare for employment in the broad spectrum of occupations in the agricultural industry. This function is not new. It has been the goal of the vocational agriculture program from its inception. The agricultural industry will always need bright, competent young men and women. Agricultural education programs must serve the prospective agricultural workers by making them aware of the opportunities in agriculture and the requirements for entry into these occupations as well as the industry by encouraging young people to seek employment in the industry. However, agricultural educators must analyze current program efforts to make sure that the needs of both of these groups are being met. According to Merrill Anderson, former president of the Iowa Farm Bureau Federation and Dr. Keith Barrows, agriculturalist for Dow Chemical Company, farming will continue to become a more complex business in the years ahead. The number and political base of commercial farmers will decrease. The number of family farm corporations will continue to grow. There will be a continuing rapid explosion of agricultural technical knowledge. There will be fewer and larger agricultural marketing and supply service organizations and an increasing number of people going into agriculturally-related occupations who do not have agricultural backgrounds. These anticipated changes, coupled with the basic needs of the agricultural industry, place high demands on agricultural education programs.

To meet this need, it will be necessary to expand the scope of agricultural education programs to include instruction in agriculture at the elementary and junior high school levels. We must expand our thinking to consider experiences as a part of the "vocational" mission of agricultural education.

Another of these functions should be that of providing opportunities for avocational coursework at all educational levels so that other students and adults may take agricultural courses or study agricultural subjects of interest to them. What is an "avocation" or an "avocational pursuit?" The first thought that comes to mind is that of hobbies. This is the traditional connotation that is associated with the term and is particularly the case with those of us who are engaged in "vocational" education. According to Mr. Webster, the term "avocational" describes a host of activities from those considered to be hobbies to those from which one derives a portion of his or her total income. When we view avocational pursuits in this

framework, it is not hard to visualize the scope of avocational agriculture pursuits. These pursuits take on many forms--gardening, beekeeping, raising livestock, insurance adjusting, land and crop appraisal, and farming. Each of these pursuits requires specific knowledge and skills. The knowledge and skills needed by persons engaged in avocational agricultural pursuits are similar to or the same as those needed by a worker to be successful in an agricultural occupation. As agricultural educators, a part of our mission is to provide instruction that will help people become successful in their choice of an avocational agricultural pursuits. To do so will require that we expand the content of our programs to include the study of subject matter germane to common agricultural avocations.

A third function of agricultural education should be that of providing instruction on the significance of agriculture, food, and food production. We are living in an increasingly interdependent and interrelated world in which agriculture, along with every other significant enterprise, is closely interwoven with the economic and social structure of the community, the state, the nation, and the world. In such circumstances, it is necessary for the public, the agricultural worker, and particularly the leaders of agriculture and agribusiness--both in their own interests and in the interests of others--to understand and appreciate the importance of these interrelationships.

It is also necessary for those within the industry and other members of society to understand and appreciate the importance of agricultural interrelationships in their world. Those engaged in agriculture must understand and cooperate with legitimate interest groups.

All of us have seen and read about the tragedies and human suffering being experienced in various parts of the world because of a lack of food. To people in the United States, that problem seems to be remote and insignificant. Because of our affluence, it is almost beyond our ability to conceptualize the magnitude of this problem. Yet, with increasing frequency, this problem is being brought to our attention and our help sought to solve the problem. It was through agricultural education that this nation's ability to produce the abundance of food that we enjoy was developed. How can we, as agricultural educators, who have been blessed so richly and who have so much to offer these people, avoid confronting this need and offering our knowledge and skills in helping these people produce the food they need to lead a normal life?

During the World Food Conference, held at Iowa State University in 1976, how to feed starving populations was discussed. Economists speculated on economic solutions and sociologists described social changes that would contribute to alleviating the problem. Technical agriculture specialists pointed out the antiquated methods used to produce food in these countries and offered their versions of what changes in production methods should be implemented to increase food production. Government representatives painted a rather bleak picture of how policies prohibited people from improving their social and economic status. Extension personnel spoke about how to introduce better methods of producing more food. Throughout these discussions, it became apparent that the real need of all these people was education and people willing to teach them how to improve their conditions, make wise use of their available resources, and apply appropriate agricultural technology.

The need for agricultural education for the general public in this country was illustrated with the banning of diethelstibestrol as a livestock feed additive. Another example is the use of nitrites in the curing of meat products. No one argues with the facts that may surround the possibility of chemicals causing cancer. What makes the situations most ridiculous is that research shows that a person would have to consume at least 2000 pounds of meat per day containing the chemicals to accumulate enough chemical to cause cancer.

Each of you can identify other instances where a lack of understanding of agriculture and agricultural processes has caused actions that were detrimental to the agricultural industry. In each case, had those involved in making decisions had a knowledge of agriculture, the results would probably have been different.

In view of the crucial importance of food, agriculture, and food production, it is imperative that this function become a part of the mission of agricultural education. To satisfy this function will require that we provide opportunities for all students to study agriculture at all educational levels and in all educational disciplines and encourage students to investigate agricultural subjects and topics as a part of their course and curriculum requirements.

We asked you when we began to discuss this topic to think in a broader sphere than we have in the past. You can see why. Agricultural education is and needs to be more than preparing people for employment in agricultural occupations. Such education should cover the "whole" of agriculture and permeate the total public school curriculum. We, as agricultural educators in leadership positions, are the architects for the program. It is our responsibility to design and initiate a program of agricultural education that will satisfy these program functions and serve the needs of those enrolled in the program. There are those who will argue that we are trying to do too much in the vocational agriculture curriculum--that we are watering down the program to the point where it is not effective. We believe this may be true, yes we see these other needs and ask why we cannot broaden the content and structure of agricultural education to deal with all agricultural education needs.

Summary

In summary, we see a four fold mission for agricultural education in the years ahead. First, we must reaffirm and re-establish our efforts to build our instruction around the needs of students. Second, we must prepare young men and women for employment in agricultural occupations. Third, we must provide opportunities of avocational coursework at all educational levels so that other students and adults may take agriculture courses or study agriculture subjects of interest to them. Fourth, we must provide instruction on the significance of agriculture, food, and food production.

THE DEVELOPMENT OF PROFESSIONAL TEACHERS OF AGRICULTURE

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This is a leadership seminar. Its purposes are to provide each participant with the opportunity to live ahead of the agricultural education profession, to interpret the profession's needs, and to conceive strategies for effecting changes required of the profession. Hopefully, all of us will keep these purposes in mind as the Seminar continues.

My purposes are to review the progress of the profession during the past two decades, to give you my interpretation of the profession's needs, and to suggest some possible strategies for effecting needed changes. Hopefully, I can stimulate each of you to project yourself into the eighties, to live ahead of your profession, and to help develop the official strategies of the profession for the next decade or more.

The first part of my paper consists of a general review of the achievements of the agricultural education profession during the past two decades. The second part offers an analysis of some of our problems and a projection of our needs during the eighties. While I was asked to focus on the teacher education aspects of the profession, I found it necessary to examine the profession at all three of its levels - teaching (local), supervision and administration (state), and teacher education (institutional).

How Well Has Agricultural Education Fared in the Past Two Decades?

Very few of the conference participants here today who have been in the profession for the past two decades would argue the point that agricultural education is generally in a more favorable position today than it was in 1960. However, we must also consider the question of whether or not we could have been in a more favorable position if we had planned more carefully -- if we had maximized our leadership potential.

There is considerable evidence that we have made good to excellent progress during the past twenty years. I base this statement on my assessment of our progress toward what I consider very recognizable professional goals at the local school level, in teacher education, and at the state level.

Local Goals - At the local school level, the cutting edge of the profession and by far the most important aspect, the basic goals are (1) number of people served, (2) diversity and purposefulness of instructional offerings, (3) quality of instruction, and (4) leadership contributions to agricultural and educational development.

Teacher Education Goals - In teacher education, the basic goals are (1) number and qualifications of teachers certified, (2) professional solutions of important educational problems, and (3) maximization of leadership potential toward educational and agricultural development.

State Level Goals - At the state level, the basic goals are (1) proper identification of problems and assignment of appropriate priorities, (2) availability and use of vocational funds, (3) professional qualifications of agricultural education personnel, (4) instructional materials, equipment. and facilities available at all program levels, and (6) maximization of leadership potential toward educational and agricultural developments.

Progress at Local School Level - We have made excellent progress during the past two decades in improving the number and quality of local vocational agriculture programs. Of course, we have done this during an extended period of financial growth and enrollment increases stemming from the post-World War II baby boom. We are today serving more students offering a wider selection of programs, and utilizing more valid curricula and instructional materials than at any time in our history. The quality of local equipment and facilities has improved dramatically.

There are a few "dark clouds" on the "local school horizon." The most notable of which has been our failure to show more growth in the area of young-adult programs. It is difficult to comprehend why we have not had significant increases in adult enrollments, especially during the last several years as the population of this age group has increased.

Another dark cloud has been our failure to modify programs to better meet the needs of handicapped and disadvantaged persons.

Still another serious problem is unemployment. It will be more critical for two reasons. The population of the 18 - 25 age group will be proportionately higher in the next decade. Also, we do not have the military draft as a "holding tank" for this age group, as pointed out by Gordon Swanson in a recent article in the Kappan (October 1978). These two facts clearly indicate that we must be genuinely concerned about the employment and the educational needs of the young-adult population.

Finally, older adults are growing in number. They have been neglected more than any group we are attempting to serve at the local level. They represent an untapped resource in education. They are eager, willing, and able. They seek to be useful rather than neglected.

We have made excellent progress in certain program areas in agricultural education at the local school level but it is clear that we have not maximized our leadership potential. In my opinion, we could have made considerably more progress if we had been more aggressive in our leadership.

Progress at the State Level - Again, looking at the commonly recognized goals noted earlier for state administrators and supervisors in agricultural education, it is apparant to me that there has been much progress during the past twenty years. Growth in vo-ag enrollments and expansion of programs available in local schools is partially attributable to state leadership. Improved professional teacher education services, curriculum, equipment, and facilities represent additional contributions of state administrators and supervisors.

On the other side of the ledger, vocational teacher education is poorly supported with state and federal vocational funds in many states. Universities accustomed to federal and state vocational support in the past, are unwilling to make up the difference. As a result, vocational teacher education is in a bind. If the trend continues, all of vocational education will suffer. Let me illustrate the seriousness of the situation in Pennsylvania. Only six-tenths of one percent of all federal, state, and local vocational funds is used to support basic teacher education programs. Quite obviously, vocational teacher education is low on the list of funding priorities in Pennsylvania. I find this difficult to comprehend. Our state leaders make no mistake about the fact that they expect to be involved in teacher education decisions. I think they must be involved. Yet, they want the universities to pay the bills. In my opinion, the fact that this situation exists, is evidence of the lack of leadership at the state level.

The fact that vocational agriculture is not offered in more urban areas, is another shortcoming of the leadership in agricultural education at the state level. There is a 17-teacher, all vocational agriculture high school in the city of Philadelphia. It is, in the opinion of many, a shining example of what can be done for urban students interested in vocational agriculture. Average daily attendance is 96 percent of the enrollment while average daily attendance is only 65 to 70 percent in the rest of the city of Philadelphia. There are far too few urban vocational agriculture programs like the one in Philadelphia.

As was the case at the local school level, it appears that we have made substantial progress during the last two decades in meeting state

goals, except in the area of leadership. It is clear to me that we have not maximized our state leadership outcomes. We have not been very aggressive during a period of substantial growth.

Progress in Teacher Education - Teacher education has made very good progress, especially during the past five or six years. More teachers have been certified in a wider range of program areas. Teachers in a growing number of states are benefiting from carefully planned inservice teacher education programs and from curriculum laboratories stocked with tested instructional resources. Faculty and graduate research is growing in both quantity and quality. A large portion of the research is experimental and addresses significant issues. It is encouraging to note that a few states have organized statewide research committees to develop long range plans. Yes, we have done very well in the last twenty years but we really haven't played our cards very well and the "stakes" have been small by comparison to what they could have been.

It appears to me that we have spent too much time on the management aspects of teacher education in agriculture and not enough time on the leadership aspects. We have, in my opinion, abdicated many of our leadership responsibilities to others outside the profession. We have allowed these outsiders to write our federal and state legislation — many of whom have little appreciation of agricultural education. We have watched our once strong agricultural teacher education programs become generalized in functions with the evolution of vocational teacher education departments. We have moved further and further away from our base discipline — agriculture. A few of our great programs of the past are nothing but a shadow of their former selves. In a conversation with a college dean about a year ago, I was told that at one point in the history of the institution one student in five in his college enrolled in agricultural education. Currently, one in fifty enrolled. What has happened?

It appears to me that we have proportionately fewer leaders in agricultural teacher education today than in the past. Many of the leaders we do have are spending an increasingly larger portion of their time outside of agricultural education. In other cases, our leadership is coming from "vocational educators" who have a very limited understanding of the needs of agricultural education and who are not really dedicated to its professional growth and development.

The recent upward trend both in the number and scope of extension education programs in departments of agricultural education around the country should tell us something. Agricultural extension is looking for help in the professional education area. Farmers are openly critical of extension's poor record of individual instruction. Most states require their agents to earn a masters degree for promotion. There is a growing recognition of the need for all of these agents to develop their professional education abilities as well as their technical skills. No single program at a land-grant institution is better qualified than agricultural education to do this job.

Finally, teacher education in agriculture has limited its functions largely to preservice education during the past two decades. Overall, we have made some progress with the inservice, curriculum development, and

research functions even though much remains to be done. We have shown the least progress in meeting our leadership function. In other words, we have failed to maximize our leadership outcomes during a period of economic and population growth. Now, we face a period of declining secondary enrollments, a greatly increased adult population, higher unemployment, increased inflation, tighter budgets, and mounting demands for greater accountability in education.

What Will the Eighties Bring for Agricultural Education? - Let us hope that the eighties will bring aggressive, improved, and coordinated leadership to all segments of the agricultural education community. During much of the past two decades, our leaders have attempted to solve our problems at the national level. Active leadership has become passive leadership as the once clear lines of organization in agricultural education at the national and state levels have been obliterated. If we are to maximize our leadership potential during the eighties, it must begin at the local and state levels -- where you and I live and work. We must stop looking at the federal government to solve our problems. It reminds me of what the late President John F. Kennedy said at his inauguration. "Ask not what your country can do for you, ask what you can do for your country." The task begins with you and me -- in our own backyards.

Leadership Potential - We have the ingredients for powerful leadership in agricultural education at both the local and state levels if we take advantage of available resources. The agricultural education profession is easily the strongest and most viable professional group in vocational education, perhaps in all of education. There is much evidence to prove it. AVA officials privately acknowledge the fact. The teachers, supervisors, and teacher educators all have strong and active professional organizations. The FFA is in a class by itself among vocational youth groups. Our year-round approach to instruction including supervised occupational experience programs makes a substantial difference in program outcomes which is very recognizable at the local level. To make a long story short, our track record in education will stand up against any educational program. We must not be reluctant to take advantage of this fact in the eighties.

Broad Based Leadership - Let's talk about agricultural education in its broader sense. What we commonly refer to as agricultural education is really only one of several segments of a larger "agricultural education" community. Included in the community are the faculty and staffs of the land-grant agricultural colleges including local extension personnel. Then there are the professional employees of the state department of agriculture, agri-industry, and farming. It is difficult to believe that we do not have an effective and coordinated means of maximizing the leadership potential among all of these resources to deal with significant issues in agriculture and in education like alternate sources of energy, land-use policy, and international agricultural trade. It is time we formed the necessary coalitions among the segments of the larger agricultural education communities to provide aggressive, improved, and coordinated leadership.

Let me illustrate the need for stronger leadership using the current energy situation. The average person still does not believe there is a world-wide, long range energy problem. Farmers are no exception. They are suspicious. They feel the situation was contrived by the oil industries. Yet, the facts clearly indicate that we will have very serious long range energy problems if we continue to consume oil and gas at the current rates and assuming we do not find alternate sources of energy. This fact has been generally known among professional personnel in agriculture since the 1973 Arab oil embargo. Not only have we failed to educate the clientele, we serve, but also we are now very late in dealing with the problems related to this important issue.

Just as surely as we are meeting here today, there will be major developments during the eighties in locating alternate sources of energy. What leadership role will the agricultural education community play? What educational role will you play? A recent study by Wallace E. Tyner at Purdue University points out that at $2.50 per bushel for corn, alcohol could, with promising new technology at Purdue University, be produced for about $1.15 to $1.20 per gallon. Thus, grain alcohol is an economical substitute for gasoline in the form of gasohol. Also, for each three bushels of corn distilled, there is one bushel of distillers grain--roughly equal to corn in energy content and about half the protein content of soybean meal.

Formulation of Agricultural Policy - The possibility of major changes in national and international agricultural policy are very real. The author of the Purdue study suggests the policy of eliminating the current domestic land set-aside program and substituting price guarantees for major grain crops. Resulting surplus productions of grain would be used to produce alcohol for fuel and power. An estimated 930 million bushels of grain per year would be freed for the production of 2.5 billion gallons of alcohol--about two percent of total gasoline consumption. Of course, farm exports, largely grain, amounting to 27.3 billion dollars in trade, represent a substantial consideration in our national trade balance with other nations. Agriculture has a major stake in the economy of this country, but we have no effective grassroots system of determining agricultural policy. The educational implications for a more effective and aggressive leadership at the local and state levels are obvious. What roles will you and I play?

Other Likely Changes in the Eighties

Aside from the broad-based leadership needs of agriculture, there are a number of expected changes at the local, state, and teacher education levels during the eighties.

Local Level - A significant increase in the enrollment of adults in agricultural education programs is a foregone conclusion. The population trends are sure indicators of the need. If we in agricultural education do not accomodate their needs, others in private schools and in the agricultural industry will. By 1990, there could be very few local vo-ag programs which do not have adult programs.

Local programs in urban areas will increase significantly. Shops, greenhouses, and other school laboratories will be modified to accomodate the educational needs of handicapped students as teachers adjust their programs for students with special needs. Learning resource centers will be fairly common among local vo-ag schools as we search for more efficient means of meeting the agricultural needs of the expanding adult population. These centers will be well stocked with individualized learning packages in a variety of subject areas.

As the type of broad-based leadership described earlier emerges, local vo-ag facilities including the more expensive learning resource centers will become the center of learning for adults as well as for in-school students. Agricultural extension will begin contributing to and utilizing these centers as a means of better meeting the individual needs of the clientele they serve. Mini-computers will be used to extend the education of adults and to bring a broad range of agricultural resources into the local school community to research and solve individual problems. Intergenerational education programs will grow in number.

Changes at the State Level - Recognition of the critical importance of agriculture to the national economy and to the well being of the total population will cause leaders to give a considerably higher priority to agricultural education in the eighties. Previously blurred and obscured lines of organization in vocational education will again be sharply drawn at both the national and state levels. An increased emphasis will be placed on strengthening the leadership in the separate vocational subject areas.

There will be closer cooperation and increased association among professional personnel in all segments of agriculture. Joint planning and policy meetings at the local and state level will increase in number. Policy statements on land-use, international agricultural trade, energy conservation, agricultural education, etc., will flow from leadership groups at the local and state levels.

There will be much closer examination of local, state, and national budgets as well as the voting records of political leaders. Those education groups with good records of accountability will receive increased funding with tax dollars. The long range value of professional personnel development will be recognized through an increased proportion of federal and state dollars. State agricultural research will be funded at a higher level. Land-grant colleges will receive increased funds to improve teaching and instructional services as USDA becomes more concerned about the educational needs of its personnel and of its publics. These funds will lead to the increased development of individual instruction packages in a broad range of agricultural areas. The packages will be available in virtually every local school community via computer terminals, mini-computers, and a selection of individual learning modes.

Changes in Agricultural Teacher Education - The eighties will bring renewed aggressive leadership to teacher education in agriculture. There will be a movement toward a comprehensive approach to the functions of teacher education in agriculture; namely, preservice teacher education,

inservice teacher education, curriculum and instructional materials development (for the local level), research, and, finally, leadership. As leaders in teacher education place greater emphasis on the inservice and curriculum functions, more federal and state funds will be used for basic teacher education activities in agriculture.

Comprehensive teacher education in agriculture programs which are closely aligned with other programs in agriculture, like extension, will show greater growth in number of faculty, students, and programs during the eighties. This is simply a projection of a current trend. Nevertheless, I find it hard to say in the midst of a sizable number of teacher educators who are located in colleges of education. Let's take a closer look at the situation.

Following passage of the Vocational Education Act of 1964, it was natural and logical that vocational teacher education departments would emerge. The Act encouraged it. State directors of vocational education literally forced this action on some institutions. It would be wrong to imply that there haven't been some benefits to our profession but there is little strength in vocational education as an entity in itself. In fact, it is impossible to define what we mean by vocational education without referring to the separate vocational subject areas.

The strength of vocational education, thus, lies in the validity and the effectiveness of the separate vocational teacher education program areas. The terms agricultural teacher education, home economics teacher education, and trade and industrial teacher education have depth of meaning. Vocational education, by itself, does not.

We must stop generalizing the function of the separate teacher education program areas in the eighties if we hope to strengthen vocational teacher education in general. Let me put it another way. With the development of vocational teacher education departments, we have weakened the arguments for agricultural education. Further expansion of vocational education program activities in the future to the detriment of the separate subject areas will lead to a strengthening of the arguments for general teacher education. I think everybody in vocational education can agree that this is not in the best interest of those whom we hope to serve.

The arguments for agricultural teacher education becoming more strongly aligned with its base discipline, agriculture, are very strong and compelling. The continuing education needs of our teachers are rooted more heavily in agricultural technology as opposed to pedagogy. Thus, we have more in common with our colleagues in agriculture. Our students identify with agriculture rather than education. There are significant unmet educational needs in colleges of agriculture that agricultural teacher education programs would be in a better position to meet if they were administered in the colleges of agriculture.

Education, like vocational education, has greatly reduced meaning without alignment with a base discipline. Some colleges of education are currently experiencing problems due, in part, to this fact. Penn State has given serious consideration at the very highest administrative levels to the

possibility of combining the College of Education with its College of Human Development. Budgets at Penn State are being reduced and recycled from college to college and from program to program. College of Education enrollments are down currently. The Department of Music and The Department of Art have been moved from the College of Education to their base discipline - the College of Arts and Architecture.

Let me point out very quickly that Penn State has a very strong College of Education. Its ratings have always been high. The point is, however, it does not have a strong alignment with its base subject disciplines. It is in effect a service college. Yet, its future strength depends on the closeness of its bonds with the various subject areas, a fact it will need to give closer attention to.

By the end of the decade, there will have been perhaps as many as a half dozen of the larger and potentially larger agricultural teacher education programs, currently located in colleges of education, which will align themselves administratively with colleges of agriculture. If I were a dean of a college of education, I would encourage such action. There would be much more to gain. It is a good way, perhaps the best way, to achieve a more meaningful involvement of professional personnel in agriculture in professional education. Agricultural education in the college of agriculture can do more to promote professional growth in education than in the college of education. This principle can be carried a step further. A department of agricultural education located in the college of agriculture can best serve the professional education needs of colleagues in other agriculture departments of the college by extending its functions in these departments. Practice teaching courses should be offered in every department. Internship programs and teaching seminars should also be a part of each department. Colleges of education faculties and agricultural education faculties must play a supportive role.

Another change for agricultural teacher education in the eighties will be the development and expansion of an international agricultural education function. We cannot take a separationist attitude into the eighties. We cannot exist by ourselves. Everything we do is closely tied to the economy and the economy is tied to improved international understanding. Some of us don't believe this. Herein lies our problem. We must cultivate our friendship with other nations, in this hemisphere, in particular. They need our food and agricultural technology and we need certain of their resources, particularly oil. We simply must improve our foreign image. Agricultural education is our best bet, but we aren't working at it. This is due largely to the mistaken belief among our population that we don't need help from other nations. We must do a better job of educating the public so that we can extend our functions to include international agricultural education.

Conclusion

In conclusion, I hope that I have helped stimulate your thinking about the future of the agricultural education profession. Your job, now, is to help formulate the best strategy for the future. Think about where you want the profession to be in 1990. Consider all available resources as you project your thoughts ahead. What type of leadership must we have? Who will be involved in the making of leadership decisions? What effect will this have on the responsibilities of the local teacher, state supervisors and adminis-

trators, and teacher education. Who will finance future programs? Who will set policy and how? What will our missions, objectives, goals, and priorities be?

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ADULT EDUCATION: A PART OF AGRICULTURAL EDUCATION

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If this were July, 1969, addressing the topic of adult education as a part of agricultural education would be an easier task. We had more answers and fewer questions. Adult education in agriculture was for young farmers and adult farmers. The postsecondary interest in agricultural education was beginning, but not well established. Special programs for the off-farm agricultural industry were exceptions.

However, the decade of the 80's finds us with more questions and fewer answers. Adult education is not restricted to persons entering or already established in farming, but has the prospect of being applicable to the whole of the agricultural industry. We are not as experienced either. Adult education is no longer assumed to be part of the job description of all teachers of agriculture nor part of the general preparation to teach. Adult education has, in many states, been delegated to the adult/young farmer specialists with only minor attention given to the task by others with specialized tasks in secondary and postsecondary education.

Because the adult programs for the off-farm industry are not well defined or documented, I am going to address the major portion of my remarks to the program areas that have some definition and documentation -- young farmer and adult farmer education. The hope is that what we might learn about the future of these programs will be transferred, where applicable to that vast segment of the industry that supports the production phase of agriculture. I make this decision on the premise that if we cannot answer the unanswered questions in a phase of instruction in which we have had sixty-three years of experience from which to draw, it is unlikely that the seventeen years of opportunity but limited experience in education for adults in the off-farm sector will provide much insight into the shape of adult education in the 80's.

While the agricultural education profession uses the titles, "adult farmer education" and "young farmer education," to describe programs for persons engaged in farming, there is a lack of identifiable program characteristics among schools, states, and regions that provide clear definition to program philosophy, objectives, content, procedures, and outcomes.

There is no agreement of commitment to education for adult and young farmers among the various states. Some state agencies have in fact abrogated responsibility for such instruction or have assigned the responsibility to higher education institutions that operate outside the normal framework and channels of communication and control for vocational agriculture. Without a change in national leadership, federal and state commitment to

programs and local support, it is unlikely that the current status of adult and young farmer education programs will change to reflect a national policy toward support of such instruction.

It is essential to understand the commonly accepted definitions of such programs if one is to chart their future course. It is equally important to recognize, however, that individual states do and will operationalize the definitions in different ways, if at all.

The most recent definition of Young Farmer Programs states (HEW, 1978): "The Young Farmer Program is a program of organized systematic instruction in agriculture aimed specifically at helping young men and women recognize and solve their problems in becoming established successfully in the community. In general the idea is to accept the young farmers at their present farming status and to help them advance to the highest efficiency and status in agriculture which he or she is capable of achieving."

This general purpose is further delineated by the specific objectives ascribed to the young farmer education program:

1. Develop competent, aggressive agricultural leadership
2. Strengthen confidence of young people in themselves and their work
3. Encourage intelligent choices of agricultural enterprises
4. Establish strong individual family and farm business goals
5. Improve the home and living conditions
6. Participate in cooperative activities
7. Provide organized agricultural recreational activities
8. Provide a basis for solid decision making in business management
9. Encourage establishment in agriculture

It is clear in the definition and in the operational objectives that the program is intended for youth who have decided upon agriculture as a career, but have not yet reached the stage of establishment in a farm business where they have complete, or the bulk, of managerial control. The programs are clearly not intended to serve the career exploration or awareness functions frequently ascribed to programs at the secondary level.

Adult education is not as clearly defined as the young farmer program, and lacks a set of organizing objectives or principles to which states governments can subscribe. The most universal definitions for adult education define components of adult programs rather than programs in their entirety. The American Vocational Association, in trying to define terms in vocational and technical education, shortly after the passage of the 1963 Vocational Education Act, defined adult agricultural classes (a component of a program) as: "Classes for farmers who are established in the farming business and who are interested in increasing their farming proficiency through participation in regular classes of systematic instruction. Such classes are of long-term and short-term duration, often held in the evening, and centered around managing the farm business or only one enterprise or unit of interest (AVA,1964).

This definition ignores the on-farm instruction, community service, and non-formal instruction that have historically been associated with the agricultural teachers role.

A more finite definition of adult instruction as might be delineated by specific program objectives is difficult to find. In fact, specific

objectives for an adult program of instruction to define a national thrust do not exist. In lieu of specific objectives, the literature cites the importance of assessing local needs and problems with a strong involvement from the community to determine the specific objectives for an adult education program (Bender, 1972).

It is apparent from literature of the profession, both historic and current, that there is general agreement that adult programs in agriculture are intended for farmers or farm families who are established in a farm business where they have managerial control.

Some of the confusion in separating the definitions of adult and young farmer instruction lies in the absence of descriptive measures of the variables used to describe the clientele. The problem is further complicated by the practices in state programs where there is co-mingling of well established and beginning farmers in the same general program, but an adoption of the title young farmer or adult farmer to describe the activity.

Perhaps our task would be easier if we were to change our descriptions to "beginning farmer instruction" and "established farmer instruction." At least then we could more clearly define the purposes of instruction and relate more easily to the educational needs associated with the beginning and established entrepreneur. It would free us from the separation by age where the young view themselves as responsible adults and the more mature hang tenaciously to the idea that they are still young.

Adult and young farmer education, by any definition, is difficult to describe in a manner that conveys a singular philosophy, organization, content, or purpose.

Purposes of the Paper

This paper will address three major objectives.

1. Summarize the current status of adult and young farmer education in the United States
2. Identify and discuss major issues that the profession should be dealing with in adult and young farmer education as we plan for the 80's
3. Identify alternatives for focusing upon the role of adult education in serving the needs of non-farm agricultural personnel

As background for our thoughts about where we should be in the 80's, we might first get a historical perspective for adult and young farmer education. Likewise, we need to examine the changes that have occurred in the number and characteristics of farms and project those changes for the 80's.

Historical Perspective

Some historians would suggest, perhaps with tongue in cheek, that the first true adult education in agriculture occurred when a friendly Indian taught the early settlers that five fish in a hill of corn were essential to good corn production. The story is indicative of the fact that almost all of the education in agriculture in the first century of this country's existence

was directed at adults. The Morrill Land-Grant Act and the Hatch Act were aimed primarily at providing educational opportunities in agriculture for persons beyond the secondary level.

Federal intervention into the educational process for farmers and farm youth did not occur to any significant extent until the passage of the Smith-Lever (1914) and Smith-Hughes (1917) Acts. The significance of the Smith-Hughes Act to adult young farmer education is illustrated by the expressed purpose of the act to provide education for "present and prospective farmers."

While state governments responded to the intent of the Smith-Hughes Act by providing educational opportunity for farmers and young farmers (often referred to as part-time students), subsequent attention to the program for secondary students diminished attention to the established or about-to-be established farmers. It was not until the passage of the War Adjustment Acts in the 1940's that specific attention was again directed toward education for adult and young farmers. The greatest increase in enrollment in organized education programs for out-of-school farmers or beginning farmers occurred as a result of these acts.

Although most states provided adult instruction through the War Adjustment Acts, only a few took advantage of similar opportunities to accommodate the veterans of the Korean police action and the Vietnam conflict. Some states, however, took advantage of the opportunities these later acts of Congress provided to establish a basis for a continuing adult/young farmer program through normal vocational education programs.

Even today, with entitlement for veterans training extending until December, 1989, few if any states have made any recent moves to initiate training for veterans. Such programs can serve as the nucleus for establishing full-time adult programs, as has happened in North Dakota and Minnesota. In these states, more than 40 full-time adult education programs were started by converting veterans programs to full-time adult positions.

It is difficult to determine the relative enrollments in adult/young farmer programs since the statistics of the U.S. Department of Education do not provide a program breakdown. To add to the confusion, it is not clear if the adult enrollments in agriculture in the community colleges have all been included in the enrollment statistics, nor is it clear if the adult efforts in the non-farm sector have all been accounted for. Since much of the adult education in agriculture, especially in farm management education, occurs in the community college system, the inclusion (or exclusion) of such enrollments in the statistics is an important factor.

The enrollment patterns in adult programs for selected periods as reported by the U.S. Office of Education is shown in Table 1.

Table 1. Adult Education Enrollments, All Vocational Education and Agricultural Education: Selected Years 1965-1975

	Enrollment in Thousands						
	1965	1970	1971	1972	1973	1974	1975
All Voc. Prog. Enroll	5,431	8,794	10,526	11,711	12,288	13,789	15,487
Adult Enrollment	2,579	2,666	2,871	3,096	3,417	3,569	4,077
% of Total	48%	30%	27.2%	26.4%	27.8%	25.8%	26.3%
Total Ag. Enrollment	888	853	N.A.	896	928	976	1,013
Adult/Y.F. Enrollment	339 (1963)	305 (1968)	-	258	-	269	279
% of Ag. Enrollment	38%	35.8%	-	28.8%	-	27.5%	27.6%

It is clear that in both agriculture and all vocational programs there has been a reduction in the proportion of adults served by vocational education programs relative to other levels of vocational instruction. The proportion of enrollment of adults was relatively high in the 60's (38 percent of the enrollment in agriculture and 48 percent in all vocational fields) but has declined to about 1/4 of the total enrollment in the 1970's. If states have a renewed and strong interest in adult education in agriculture, as I have been assured is true by many state level personnel, that commitment is not evident in the enrollment statistics.

It is interesting to note that although there is an avowed difference in agriculture programs for young farmers and adults, the statistics compiled at the federal level do not differentiate between the two program areas, nor is there any attempt to compile data that differentiates between programs of short duration and those that require intensive organization of instruction. Adults who may attend only one or two class sessions are counted the same as adults who enroll for 60-70 contact hours.

Also lacking from the federal statistics is any compilation of the number of teachers who are involved in full-time work with young farmers and adults. While it is known that in 1977 there were 17,255 teachers of agriculture, of which 12,694 were listed as secondary teachers, there is no indication of how the remaining 5,000 teachers were divided among post-secondary institutions, community colleges, young farmer programs, adult programs, and veterans training programs. To gain a workable insight into the commitment states have to education for young farmers and adults, it is necessary to understand how willing states have been to commit resources for the employment of full-time teachers for young farmers and adults. It is estimated that the total cadre of young farmer and adult instructors who are employed on a full-time basis, including all levels of employing institutions, numbers less than 500.

The Status of Agriculture

Almost all professionals in agriculture have been aware of the erratic, but steady decline in the number of farms in the United States during the last several decades. While at one time (1920) there were almost 6.5 million farms according to the agricultural census, in the latest complete census (1974), the total farm numbers have declined to 2,314,013. During this period there has been not only a real decline in the number of farm units, but several redefinitions of what constitutes a farm business. This is illustrated by the fact that on January 1, 1979, the state of Minnesota lost 10,000 farms by redefinition. It is important to note that the real decline in

farm numbers has dramatically slowed in all sections of the country, with the midwestern farm belt experiencing a relatively stable number of farms over the past 5 years.

To base expectations of need for programs of instruction for young farmers and adults on total farm numbers is erroneous. Since the Census data uses descriptors of such small size to define a farm unit, it is more important to be aware of the number of commercial farmers that could profit from agricultural instruction and the potential need for replacing operating farmers with young beginning farmers. While the proportion of commercial farmers to rural residents may vary from state to state, a rule of thumb would suggest that about 60 percent of the farmers counted by census reports could be considered potential enrollees in young farmer/adult programs. Using this rule of thumb, there would be 1,388,000 commercial farmers at whom adult/young farmer programs could be directed. If the enrollment in adult/young farmer programs is compared to the potential, the programs to which this paper is addressed serves only 19 percent of the potential commercial farmers and only 11 percent of the total census count of farm businesses. There is much room for improvement of the quality and quantity of instruction even though on a percentage of the population served the statistic is impressive.

Current Status of Adult/Young Farmer Programs

There appears to be two distinct types of educational programs categorized under the general heading of adult education: (1) the intense management programs that incorporate attention to the details of farm business analysis and decision making and (2) the programs aimed at skills and technology transfer with little or no attention focused on the whole farm business. Programs of the later type are more numerous and less easily defined as to scope and substance. The majority of the full time adult/young farmer instructors, however, are engaged in some form of intensive management instruction.

Of the management education programs, a majority of the states use the system developed by Minnesota. Such programs are found in Washington, Alaska, Oregon, Utah, North Dakota, South Dakota, Nebraska, Minnesota, Pennsylvania, and Connecticut. Other states, notably Ohio, Illinois, Kansas, Missouri, and New Mexico, utilize a system of business analysis and instruction of their own design. Information on management programs is incomplete and may not include some state sponsored management programs with which the author is not familiar.

Young farmer instruction has been given some impetus by the action of the U.S. Office of Education in publishing guides to program operation and management. The latest guide, "Planning and Conducting a Program of Instruction in Vocational Agriculture for Young Farmers" (1978), was done by a committee of the agricultural education profession.

The "1977-78 National Directory of Young Farmers Chapters" lists 1,158 active chapters in 30 states. However, the presence of a Young Farmer Chapter is not definitive of the type of educational program conducted or of the age group of farmers served.

That there is a need for young farmer programs is well documented by the rather constant rate of replacement of older, retiring farmers. With a few notable exceptions caused by depression or war, the replacement rate appears to hold fairly constant at about 30 farms per 1,000 per year. Given the estimate of 1,388,000 commercial farms, there is a need for about 42,000 new commercial farmers each year. If young farmers remain in organized programs for even a minimum of 5 years, the enrollment would reach over 200,000 for just beginners if all were enrolled.

Some Major Issues and Concerns

Commitment - You have an opportunity to decide at this conference if adult education is to be a part of agricultural education in the decades ahead. Timing is critical. If you decide to delay action on commitment until the decade of the 90's, I contend that it will be too late for agricultural education to make any significant impact or to have a significant share of the responsibility for education beyond formal secondary and postsecondary instruction.

What is commitment? Commitment is more than philosophical lip service to the idea that we have a stake in adult education. It is a commitment of resources - manpower and money - to mount a significant thrust toward serving the out-of-school population.

There are at least four areas in which money and manpower are needed: research, teacher education, supervision, and curriculum support. Without them, local programs are like a rudderless ship, moving endlessly in random directions without focus or leadership.

Research is not a high priority for funds as viewed by many teachers and many in supervisory positions. The impact and benefit of research is too subtle. Yet, it is the research that leads us to doing a more effective and more efficient job of instruction. It is research that can determine for us where our problems lie and the extent of the problems. Research is less likely to discover a solution. If you examine the summaries of studies of research for the past several years, you will find that research about education for adults and young farmers is not an equal partner with our attention to the other phases of agricultural instruction.

Teacher education for adults has fared no better. While most teacher education programs give at least token attention to working with adults it is not a significant thrust comparable to attention to teaching at the other levels. Few teacher education staffs are large enough to assign a staff member to a primary responsibility for adult education. There is a lack of advocacy due in part to the lack of time devoted to the task. It may be fair to suggest that many teacher educators have had little experience in adult education and feel uncomfortable in the task. But even the lack of advocacy could be in part overcome if teacher preparation programs included a larger dose of the technical subjects that would prepare teachers to deal effectively with the problems of beginning and established farmers. There must be some shift toward building competence in management, decision making, and the process of establishment if teachers are to move comfortably into the role of teaching and advising entrepreneurs.

The gradual erosion of the effectiveness of state staffs must be reversed. They have been not only eroded in numbers, but by the dilution of their responsibilities to serve all vocational fields. It is doubtful if state staff members can assume a helping advocate role for adult vocational agriculture when their numbers and responsibilities have been eroded so they cannot even be effective advocates for vocational agriculture. Some states, where staff have been assigned specifically to secondary, postsecondary and adult levels have a better opportunity of becoming strong advocates for adult education, if the problems of articulation between levels and the internal differences in focus do not consume too much of their time and energy.

Resources are also required for curriculum development and support. Although the Federal effort at a curriculum guide for young farmers was a step toward aiding local programs, no such effort exists to provide a similar emphasis on adults already established or on the out-of-school youth and adults who work in the off-farm industry. Some states have developed good curriculum materials to support management, enterprise, and young farmer programs. Few states, however, are equipped to disseminate the materials outside their state boundaries in a way that will train others in their use. Individual states with limited resources can ill afford the cost in both money and manpower required to develop their own. Lacking such direction at the national or regional level, states frequently leave the vital task of curriculum development to the local instructor. Thus curriculum, removed in development from both teacher education staffs and supervisory staffs, fails to attract the needed advocacy of the agricultural leadership.

Local Program Support - Financial support for local programs is a form of commitment that is so crucial to the success of an adult/young farmer program that it deserves separate attention. For programs to get established, there needs to be special incentives. For most schools where local tax dollars are less than adequate, incentives equate with money. But money needs to be on a firm base. States who build their support for adult programs on a foundation of federal dollars, build on a foundation of sand. The slightest tremor in the authorizations for vocational education can tumble the walls. A firm base is built when state governments and local governments make a commitment to serve their own adult populations. To gather such support requires patient and persistent liaison with local and state legislative bodies. It requires the support of our allies who have a stake in the success of the agricultural enterprise. It requires bold and innovative approaches to funding.

To garner support for adult education in the 1980's will not be easy. There will be many areas seeking state and federal support. It is unlikely that the problems we now face of unemployment and inflation will be erased in this decade. It is a worldwide affliction. It will lead to greater demands for public works, but public works associated with the development of skills and competencies.

In approaching this task of gaining recognition and support, it will be wise to look beyond those whom we have normally considered our circle of friends and allies. There is support in other circles. These brief quotes from the AFL-CIO platform proposals to the Democratic and Republican National Convention 1980, illustrate the point.

"Free public education has made America great, but there must be more of it, assessible to more people."

"Vocational education must be improved through increased support for teacher training, upgrading, and modern equipment. Increased emphasis on academic skills is essential to the success of technical skills training."

"The government should fund studies of new educational needs of adult workers which will lead to the development of traditional and non-traditional approaches."

The task of gaining support for adult education in agriculture is awesome. With support from our old and new friends, the task will be less arduous.

The Nature of Programs - The 1980's is a time to decide. It's a time to decide if we are going to work on the periphery of the problems of agricultural production and entrepreneurship by addressing only the problems of practices, technology, and technology transfer, or if we are to shift focus to deal with the problems of greatest concern - management of the total resources of the farm.

While technological innovation and adoption will continue to be a major concern of the farm business enterprise, the problems of management will become more severe. It matters little if the businesses with which we will deal are small, medium, or large. The primary concern will shift to making the decisions to keep the business, regardless of size, afloat and economically healthy. We must become adept at planning, budgeting, record keeping and analysis, financing, and the other orientations associated with management.

How well are you prepared for the task? It is a task that requires a different mentality and a different focus. It requires the ability to examine an agricultural business with a fisheye lense so that we see the whole of each farm business. It requires the ability to think in economic terms.

It is not easy for those of us who deal in small amounts of money that come through fixed, regular salaries to even think on the same plane as those who farm. For example, the records of farmers in the Southwest corner of Minnesota show an average farm investment of over a half-million dollars. To earn enough money to pay a return on investment at 12%, requires a return over all costs of $164 a day or $6.84 for every single hour. To manage just the cash flow of $150,000 per year, or $411 a day, suggests that economic literacy is of primary importance.

Educational programs to meet the needs of farmers such as these must extend beyond the short series of classes, or occasional short courses to provide the indepth instruction in management that many farmers so desperately need. Classroom instruction must be supplemented by meaningful personalized instruction and supported by a system of data collection, analysis, and decision aids that will help the farmer learn the essential skills of management.

To organize for management instruction requires some change in the way we think about education. We must think about results and impact on family progress rather than be preoccupied with counting numbers. It may require us to consider doing more with fewer people but doing it in a way that pays big dividends. This is not to suggest that the technology transfer activities of today should be abandoned. Rather, they must become subsidiary to and supportive of the greater thrust in overall management.

The Off-Farm Clientele - We could divide the off-farm clientele into two basic groups - employees and employers. Beyond that, the diversification of the off-farm group is so great it is extremely difficult to describe activity that would be useful, except to suggest that there are three basic kinds of adult activities that should be considered: (1) technology instruction for upgrading skills and competencies in whatever agricultural jobs are represented in the community; (2) basic instruction in how one gets established in business for those who contemplate business ownership; and (3) instruction in business management for those already in business.

Add to the vocationally oriented groups the off-farm group members who seek information either for hobbies or income supplementation.

For many in the off-farm industry, the topics that deal with technology and technology transfer normally oriented to the young or adult farmer may be applicable. What is needed is a conscious effort to inform the off-farm workers that they are welcome participants. It may also be possible in larger communities to organize some special instructional activities that zero in on the off-farm group, if there are sufficient numbers and homogeneity to warrant such an effort. The reality in most communities is that the off-farm agricultural worker fits neither of these criteria; there are not many of them in each town and they do not have similar jobs or responsibilities. We must examine our role with this vital agricultural group to determine how we can organize to best provide educational opportunity in the decade ahead. One important question this seminar should address is where responsibility stops.

If you are not comfortable with education directed at the overall management of a farm, then you will be even less comfortable with the management of an off-farm business. While the principles of management are similar, the application of the principles is more diverse. Yet it seems imperative that those who teach in areas where the off-farm business enterprise is economically important should direct some attention to this vital area. To do so requires a shift away from technology and technology transfer toward an emphasis on management, decision making, and associated financial tasks. It may be that we are ill prepared, and the clientele too scattered to mount an effective program that deals with starting a business or making an agricultural business once it is started.

Conclusion

Early in this paper, I suggested that if we do not make significant progress in adult education in the decade of the 80's that the decade of the 90's will be too late. In conclusion, I would like to elaborate a little on that statement.

First, to meet the adult needs in agriculture, the orientation of the program has to change. Our challenge is not to get better production from agriculture, but to manage our production better. It is a matter of keeping up with the times. When the chief concern of farmers was to improve production, it was appropriate that our attention should be focused on technology and technology transfer to affect the desired increases in production. The character of agriculture has changed. While new technology is still an everyday occurance and some attention to technology transfer is essential, the problem now is one of managing the technological resources. This emphasis on management is going to be the need of the 80's. If we are not prepared to be a partner with agriculture with a management education thrust, we will find our emphasis on technology transfer serving only the incidental needs of a vast majority of our potential clientele.

Farmers will not be easily deterred in their search for management help. Some have already solved this problem by banding together to employ their own management advisors. It is a growing movement.

The real competition will come, however, from the private sector. There is a movement this very day to meld the agricultural influence of a major co-op with the data management capability of a major corporation. If this movement is successful, there is the prospect that management, education, and service in agriculture will move from the public sector to the private sector. Every cooperative service center in the towns and villages across the land will be a potential site for an agricultural management service center, that will provide not only data services, but access to a myraid of computer management decision aids and access to countless hours of technical instruction. Nor will we have exclusive domain in pure education. This same corporation is developing agricultural institutes to provide the educational services that beginning and established farmers demand, but some states have chosen to ignore. This is not a Buck Rodgers dream--it is a reality.

I think we have some hard choices to make. We need to choose if we wish to provide farmers with a choice between programs in the public and programs in the private sector or if we wish to abrogate our entire responsibility for education for out-of-school youth. You have only a few years to decide. If you decide to do nothing about strengthening the national approach to adult education--an approach that will require a shift in both young farmer and adult programs to an emphasis on the economic reality of the times--then adult education beyond the 80's will not be a part of agricultural education.

The choice is ours.

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AGRICULTURAL EDUCATION IN THE NEW DEPARTMENT OF EDUCATION

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It is great pleasure to be with you today to express my perceptions of agricultural education's role in shaping the future and to commend those responsible for this conference.

Leadership of Vocational Agriculture

Vocational agriculture has always been out in front as our world has changed and our economy was shifted and struggled. Examples of this leadership include:

Building Our American Communities FFA projects,
Dramatic increases in agricultural productivity,
Leadership training for youth through the FFA,
Innovation and inventiveness both on the job and in the classroom, and
Application of research findings in the home, school, workplace, and community.

From the time of the Smith-Hughes Act -- and even before that -- agricultural educators have provided tremendous leadership in vocational education. You continue to do so today.

Over the years you have changed and adjusted to the needs of our society and workforce. Specifically, you have met the challenges presented by dramatic shifts in farm employment -- from 13.8% of all U.S. jobs in 1947 to 3.6% in 1977 -- and by helping the American farmers to become the most productive in the world. As a matter of fact, I would propose that agriculture be considered the prototype of productivity and one that other industries should immulate. You have provided the training which has enabled this smaller number of farmers to produce more per person-hour than ever before. That is productivity!

You have also responded to the tremendous need for individuals who are trained in the fields of agribusiness, horticulture, production agriculture, and natural resources and all other occupations which require agricultural competencies.

Vo-Ag Plays A Major Role in Achieving National Objectives

Vo-ag will be very important in economic development and productivity. FFA projects involving vocational agriculture teachers in community development and assisting vo-ag teacher educators in developing a community development model are most commendable. These can serve as models for other vocational

education programs. Vo-ag needs to share with other vocational educatio.. people the methods of teaching used for productivity.

Vo-ag will be important in achieving equity. This will be by continuinty to expand enrollments of women, minorities, and handicapped persons in vo-ag. I urge you to continue to prepare these individuals for leadership roles through FFA. FFA provides the finest leadership experiences youth can have and focuses on the development of the individual. Evidence of greatness is shown in the leaders you have helped prepare, including President Carter.

Vo-ag will be important in youth employment. There needs to be:
Continued emphasis on developing urban vo-ag programs.
Emphasis on cooperative ag education needs to be continued.
Vo-ag programs need to expand in rural areas and particularly isolated rural areas.

Vo-ag will be important in the situation of energy. I encourage you to continue to emphasize President Carter's challenge to the FFA concerning energy conservation. I encourage you to explore the feasibility of preparing youth for careers in energy production from agricultural products such as alcohol. I encourage you to emphasize in curriculum and FFA, energy conservation in the home and workplace.

Role of Vo-Ag in Total Educational Community

In the total educational community, vo-ag will be providing leadership, sharing knowledge of exemplary teaching methods, and sharing knowledge of leadership development.

I am extremely interested in your recommendations and counsel as we move through the 80's and prepare to meets its challenges.

WHERE TO FROM HERE ON THE ISSUES

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In the next few minutes I will share some of my observations of what has been said during the past two days as we have considered what we see the shape of the future to be in agricultural education. These observations, I hope, will reiterate and sharpen some of the issues with which we must deal as we face the challenges of the future. Secondly, I want to suggest some possible next steps that we must continue to be engaged in as we develop and plan an agenda for the future.

Let's remember why we are here. Let's take a look at the objectives for the seminar. One objective was to provide for open discussion about trends and new directions in agricultural education. That objective has been accomplished for there has been ample opportunity for open discussion. A second purpose was to identify, describe, and prioritize specific issues. My interpretation is that this objective has been very capably accomplished. A third major objective was to identify activities, programs, and practices for adjustment to the trends, issues, and new direction in agricultural education. We have made a start on that objective. Obviously there is no way for that objective to be completed during a two-day seminar. I join with all of you to pay special attention to the outstanding job Harold Crawford and the graduate students from Iowa State University have accomplished in planning and conducting a superb seminar.

My major concern now is to deal further with the objective concerning activities, programs, and practices for adjustment. What are we going to do about it? Another point that must be emphasized, which has been obvious throughout the seminar, is the interrelatedness among the three major topics we have been discussing. There is no way you can talk about the topic of agricultural education as a part of the public school system and not at the same time make direct implications for the professional development of teachers and the role of adult education. Sometimes that interrelatedness was confusing and frustrating, but that is the reality of the situation. There is no way we can look at a particular segment of the profession without looking at other segments and the relationships among them.

Some Observations

I want to concentrate on four points that have direct implications for an agenda for the future. I have identified these as major ideas with which we must be concerned.

Production Agriculture Orientation - Agricultural education continues to be viewed by others, and by us, primarily as a rural and production agriculture oriented program. Each of the keynote speakers on Tuesday both directly and indirectly made that orientation very apparent. Other speakers

have done the same. The Executive Director of AVA talked almost exclusively in terms of the rural orientation of agricultural education. Our discussions have emphasized that orientation also.

If the sector of the agricultural industry other than production agriculture is to be evident as a significant part of agricultural education, we will have to make it so. The role of agricultural education in urban and nonproduction instructional areas will have to be more visible to ourselves and to others if we are going to shape the future in the way we have discussed during the seminar.

Secondary School Orientation - We, and I am sure others, perceive agricultural education first and foremost, and in some cases exclusively, as secondary school vocational education in agriculture that is driven primarily by federal appropriations for vocational education. In our discussions we almost always begin with the high school programs of vocational agriculture and those activities we claim to be integral parts of the secondary school instructional program. Other aspects of agricultural education are in a sense additions that are frequently given second-class status. Adult education, postsecondary programs, and instruction in agriculture for persons in grades below grade nine are three cases in point.

Nationwide it is clear that postsecondary programs in agricultural education have not grown and developed as an extension of secondary school vocational agriculture but independently in institutions that are independent of the secondary schools, namely, area postsecondary schools, junior colleges, community colleges, and technical institutes. An interesting corollary is that the phase of agricultural education that has shown the least growth nationally in the last 10 years, and in fact has shown a decrease in total enrollment, is adult education which continues to be considered primarily as an extension of the secondary school vocational agriculture program. Incidentally, I haven't heard much talk during the seminar about a shortage of postsecondary teachers of agriculture, but we talk a great deal about the shortage of high school vocational agriculture teachers.

Recognition of Success - We have received a great deal of endorsement and praise during the past two days about what we are doing in agricultural education. Good for us! It is good that we are viewed as having solutions to some problems. But let's be very careful that we do not place these compliments too close to the admonition yesterday morning that "if it isn't broken, don't fix it." Let's not assume that everything is satisfactory. Let's be careful not to interpret what we have heard this week, from ourselves and from others, as an endorsement of the status quo. I don't think we are ready to say that everything is satisfactory. Remember that one of the objectives for the seminar pertains to adjustments. I agree, we are not broken, but we have some adjustments to make. I am fairly sure there is some fine tuning to be done, if not major adjustments.

Identification of Issues - My fourth observation is that we have identified a number of important issues that we must deal with as we design policies and programs for the future. Our discussions have confirmed that observation. I have seen these issues appear in a somewhat different fashion than the statements of issues we reviewed this morning that were developed yesterday in the small group sessions. Actually these issues have surfaced during our discussions as a series of conflicts. May be we should call it

creative tension. It is my contention that how we deal with these conflicts indicates specifically how we deal with the issues we consider important as we develop agricultural education for the future.

I want to share some of these issues (I call them conflicts) with you as a way of emphasizing that we have been dealing with major issues during our discussion. In effect, during the seminar we have begun developing a platform for the 1980's for agricultural education in the U.S. and the various states. What that platform says reflects where we come down on the issues with which we are dealing. Let me sketch the outline of several of these conflicts (issues).

First, on the one hand we talk about our mission as including the development of people, meeting the needs of students, teaching students, being concerned about the whole student, preparing people to think independently, to reason and make decisions, to be creative, and to be able to use the knowledge and basic principles that they learn in other subjects. Professor Hobbs alluded to this type of mission for agricultural education when he stated that"vocational agriculture is different from training welders." On the other side of that issue we keep emphasizing that our primary mission is the preparation of the workforce of this country, people for employment -- skill development. In these discussions instead of talking about teaching students, we emphasize teaching skills and subject matter. This illustrates one set of conflicts.

Frequently, we treat the two sides of these issues as mutually exclusive categories of a dichotomy. I propose that the various positions on an issue are not mutually exclusive but are points on a continuum. Let me cite some other issues that have surfaced during our discussions.

Again, related to purpose, we talk about a broadened purpose of agricultural education and on the other hand we invariably narrow the discussion to preparation for occupational placement.

Another issue we talked about is a diverse and expanded clientele. We use the term K through 14. On the other hand we continue to talk about the limited clientele we are charged to serve.

We use the term generalization to describe a broadened mission while on the other hand we talk about specialization.

We have used the terms flexibility and diversity of programs, and on the other hand we have talked about standardization, centralization, and the straight jacket of legislation as our source of philosophy and practice in vocational agriculture.

Continually we emphasize that we are a part of the public school and then the next point emphasizes how vocational agriculture is different.

We talk about how we need more highly qualified teachers of agriculture, and on the other hand we say or imply the only people who really make good teachers are those with a farm background who completed four years of vocational griculture in high school.

We talk about teaching applied biology and science, teaching mathematics, and teaching students to communicate. This discussion implies a broad-based teacher education program, but then in the preparation of teachers we talk about the best preparation for teachers is a high concentration of "hands-on" experience in how-to-do-it skills, such as operating a combine.

We talk about the necessity of teachers who are creative and innovative, but in the next breath we talk about curriculum guides, instructional media, and lesson plans that are highly structured, in effect, "teacher proof."

And finally, we have used two other words that summarize these conflicts. We have talked about being "idealistic," and on the other hand we have talked about being "realistic." If the future is going to be bright, and I believe it is, we must have a large dose of idealism. We must be idealistic if we are to design programs that are realistic.

Next Steps

I'll make a few comments concerning what I see as some next steps we must take as we plan for the future in agricultural education. It has become readily evident that there is no single national program of agricultural education in this country. In my opinion there never should be a single national program. One thing that has come through loud and clear during this seminar is that agricultural education must reflect diversity and flexibility. It is very obvious that agricultural education in the various states not only is different but needs to be different. Consequently, we have to deal with some of the issues that have been identified not exclusively on a national basis but on a state or area basis as well.

State Conferences - My first suggestion is this. Each state has to deal with the issues that have been identified. Each state has to decide what agricultural education in that state is to be, then we have to design programs, policies, and activities that make that type of agricultural education operational. As one possibility for doing that, perhaps each of us needs to go home and convene in the very near future a conference similar to this in our state with representation from the groups represented here -- high school teachers, postsecondary teachers, adult instructors, teacher education personnel, state department pesonnel, business and industry representatives, and school administrators -- where we deal specifically for our state with the issues we have identified here. One question has to be given priority: what is the mission or what are the purposes of agricultural education in this state? Each of the groups in the profession needs to deal with that question also. Those of us in teacher education need to consider the issues that have been identified and discussed. So do state department personnel, high school teachers, and postsecondary teachers.

Professional Organization - Another major "where to from here" concern is what are the professional organizations going to do about the outcomes of this conference? I am referring specifically to the Agricultural Education Division of AVA, NVATA, NASAE, and AATEA. What programs and activities will we continue to initiate that demonstrate that we are exerting some leadership and influence to make things different?

Unresolved Issues

Now I want to reiterate some overriding concerns discussed during the seminar that we have not closed the agenda on. Also I am not sure we have dealt with these issues to the extent that is required.

Teacher Shortage - Foremost of these unresolved issues is a concern we have been talking about for years - the shortage of an adequate supply of competent high school teachers of agriculture. We can no longer only talk about that issue and rehash the same old concerns. What we have said and done for 20 years hasn't worked; something has to change! If we look at the declining enrollments in high schools nationwide, maybe that issue will be settled for us in a few years. But that is not a very creative way to deal with the problem. Actually national data indicate that the number of graduates from the universities each year is adequate to meet the demand. The problem is that graduates certified to teach are not entering teaching.

In my opinion we can no longer ignore what has to be a direct connection between the teacher shortage and the role and professional environment of the high school vocational agriculture teacher. Gordon Swanson has referred to this as a structural problem. We have to look at the role of the high school vocational agriculture teacher and decide to what extent the things teachers are expected to do and the environment in which they work are factors -- not necessarily the only factors -- that impact on this perennial problem. We can no longer do business as usual when it comes to the role of the high school teacher. There must be a redefinition of that role. Something has to go. I haven't seen us do much toward redefinition or making the demands of that role more realistic the past two days. In fact, we probably have added responsibilities. I propose that we adopt zero-based budgeting techniques to redefining the role of the high school teacher of agriculture. Let's wipe the slate clean and begin adding responsibilities only when they can be justified on an educationally sound basis.

I compliment John Murray and his task force on their report concerning this problem. I give them highest accolades for one suggestion that I propose we implement immediately. The task force proposes that one way to encourage young people to prepare for teaching is provide more incentive, namely scholarships for persons preparing for teaching. Specifically, the task force proposed that we approach business and industry to see if we can garner funds to be used as scholarships for people who are preparing to be teachers. Their boldest suggestion was that we ought to use the financial support now provided by business and industry for sponsoring meal functions for these scholarships rather than for feeding ourselves at AVA. Since it has just been announced that the NVATA Board of Directors will meet following this session, I suggest they implement the proposed new policy immediately. Undoubtedly, commitments from business and industry have already been made to sponsor meals at AVA in New Orleans in December. I much prefer that the money that has been pledged now be used to initiate a NVATA scholarship fund for prospective teachers. I am willing to pay for my meals in New Orleans. If you will join me, we can get the new scholarship off the ground immediately.

Postsecondary Organization - Another factor that we must consider seriously is the role of professional organizations when it comes to the postsecondary dimension of agricultural education. We have three national organizations - AATEA for teacher educators; NASAE for supervisory personnel;

and NVATA for teachers, primarily for high school teachers. Why don't we have a national organization within the Agricultural Education Division of AVA where professional postsecondary agricultural educators are equal partners in the endeavors of agricultural education?

Federal Legislation - Another concern we have to deal with is: Are we going to continue to allow our philosophy and policy concerning what agricultural education is to be dominated completely by federal legislation? Which term is the more inclusive and descriptive of our total efforts -- "agricultural education" or "vocational agriculture"?

Adult Education - Policies and programs for adult education are high priority concerns as we plan for the future in agricultural education. Is it viable to continue an adult education program that is almost exclusively an extension of the secondary vocational agriculture program? Should adult education in agriculture become more closely allied with public education institutions in the various states that consider adult and continuing education to be a major mission? In most states these are the postsecondary schools and not the secondary schools. In view of what we have heard during the seminar about population shifts, it seems to me that it is imperative that adult education receive our immediate action.

Accountability - Another major concern we have to deal with, and I am not sure we have dealt with it sufficiently during the seminar, is accountability or the evaluation of program effectiveness. Obviously we are not going to divorce ourselves from the federally-assisted program of vocational education, consequently we must deal with the accountability and effectiveness concerns mandated by federal legislation.

Equity - The last specific concern I will mention pertains to equity. I refer specifically to equity pertaining to sex, race, and the disadvantaged and handicapped. Not only must we be concerned about equity in programs and enrollment, but it is equally important that we do something about equity in terms of staffing and in the professional organization. These concerns are equally applicable for teachers, teacher educators, and supervisory personnel. We must deal with the equity issues in an aggressive manner.

Where To From Here?

As we conclude the seminar, probably the most pressing and important question is: Where to from here? How do we now deal with the issues that have been identified, described, and discussed so that the policy and practice adjustments we make result in forward-looking and innovative programs for the 1980's?

One of the keynote speakers, Professor Hobbs, suggested that vocational agriculture is the solution to some of the major problems that public schools now face. Here are some of the dimensions of the "vocational agriculture solution" that he mentioned: involvement of the school in the community; use of community resources; home instruction and supervision; integration of academic skills; and a multi-purpose program resulting in multiple outcomes including occupational exploration, the acquisition of knowledge and skills that apply broadly, and a sense of community and pride in the school.

We can be rightfully proud of this recognition of our strengths and past success. But if we only look at the practices that have proven so effective with traditional production agriculture programs, we are likely to miss the challenge. Agriculture education in the 1980's will demand that we renew our commitment to the ideals and principles undergirding these practices and continue to make these ideas operational, through new practices, in agricultural education programs of today and the future. We must turn our attention to the full implementation of these ideals and principles for programs designed for urban in addition to rural students and for persons whose major interests are nonfarm occupations as well as farm occupations.

In conclusion, I perceive that we have made two major commitments during the seminar. We have seriously discussed, for the first time in a number of years, broadening the purposes of public school education in agriculture. We have begun to talk about implementing agricultural education programs that are broader than vocational agriculture and consequently serve a broader and more diverse clientele. And second, during the seminar we have recommitted ourselves to diversity and flexibility. I sense that we are convinced that everything in vocational agriculture does not have to be done exactly as it is in all other fields of vocational education. I hope we leave here committed to that proposition.

You and I can make a difference. We can make a difference collectively as a profession; also we can make a difference individually. I suggest that each of us leave with the commitment to do something to make our work of the past two days the beginning of a renewed program of agricultural education in the decade ahead.

APPENDIX A

ISSUES IDENTIFIED DURING SEMINAR

Editor's Note: Appendix A presents the issues identified by participants in the Seminar. The process involved dividing the participants into small work groups with specific assignments. The issues presented here reflect the work of the small groups.

Issues

AGRICULTURAL EDUCATION AS A PART OF THE PUBLIC SCHOOL SYSTEM

Is the mission of agricultural education (K-14) to address the educational needs in all aspects of agriculture/agribusiness/natural resources?

Is the mission of agricultural education (K-14) to include all students, as described in PL94-482 or some subset as their logical clientele?

How do we develop the vocational agriculture program to effectively meet the needs of diversified student populations?

How do we develop the articulation and program flexibility to provide maximum educational opportunity for students of agriculture?

How should the program in agricultural education be organized and evaluated to provide a programatic concept in carrying out the mission of agricultural education?

How should the role of supervised occupational experience and student organizations be identified and described to carry out the mission of agricultural education?

Who shall be responsible for leadership in agricultural education and what leadership roles and styles are needed along with how may they best be located and coordinated?

How can resources be identified, acquired, and used effectively?

Issues

THE DEVELOPMENT OF PROFESSIONAL TEACHERS OF AGRICULTURE FOR THE PUBLIC SCHOOL SYSTEM IN THE FUTURE

How can vo-ag teachers manage their time, instructional program, resources, and professional committments?

What is the role of the teacher in working closely with students, parents, school personnel, advisory committees, community, and other groups?

What should be the nature and extent of certification requirements for vo-ag teachers?

What should be the nature and extent of occupational experience requirements for vo-ag teachers?

How do teacher education programs provide realistic technical training for a variety of backgrounds?

What are the crucial professional competencies of vo-ag teachers?

Should teacher education programs be designed to train teachers for secondary, postsecondary, and adult students?

What will the working environments/conditions including standards, salary, and support services be in order to recruit and retain vo-ag teachers?

What partnerships will be needed with agribusiness and industry, government agencies, local educational units and others in recruitment and retention of teachers?

What certification requirements will be needed to recruit and retain agricultural teachers in the 80's?

How can agribusiness, industry, and the local community provide financial, moral, and physical support needed by the vo-ag teacher?

Is year-round instruction essential for a quality vo-ag program?

What should be the educational technology (computer softward, E.T.V., viedo cassetts, self instructional packages, etc.) for agricultural education in the 80's and 90's?

What support is needed by the vo-ag teacher in the area of curriculum materials?

Who should determine when local equipment and facilities need updating/replacing and who should provide the finances for such improvement?

What supervision of local programs of vo-ag/agribusiness should be provided by the state department of education or vocational education?

Issues

ADULT EDUCATION AS A PART OF THE PUBLIC SCHOOL SYSTEM

Should adult instruction be an integral part of vo-ag?

How should adult instruction be viewed in relation to the vo-ag program (integral, overload, vocational or general education, etc.)?

Who should the vo-ag adult instruction serve, and how should their needs be determined?

How can a comprehensive program be developed to meet the needs of adult groups?

What is the role of agricultural educators in articulating educational programs, public and private, for adults in agriculture?

How can agricultural education utilize other agencies and organizations to achieve critical mass for teacher education and program delivery?

How do we obtain and maintain state and local funding to support young farmer and adult programs in agricultural education?

Will state and local financial support for adult education as part of year-round program in agricultural education be affected by what appears to be possible duplication of services by various state agencies, institutions, and organizations?